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(54) Method and apparatus for removing noise data from a digitized image.

(57) An apparatus and method for removing background noise and high frequency noise from an image by comparing each pixel in the image with neighboring pixels defining a variably shaped and

sized kernel. The size and shape of the kernel are optimized for the particular characteristics of the data to be analyzed.

EP 0 401 077 A2

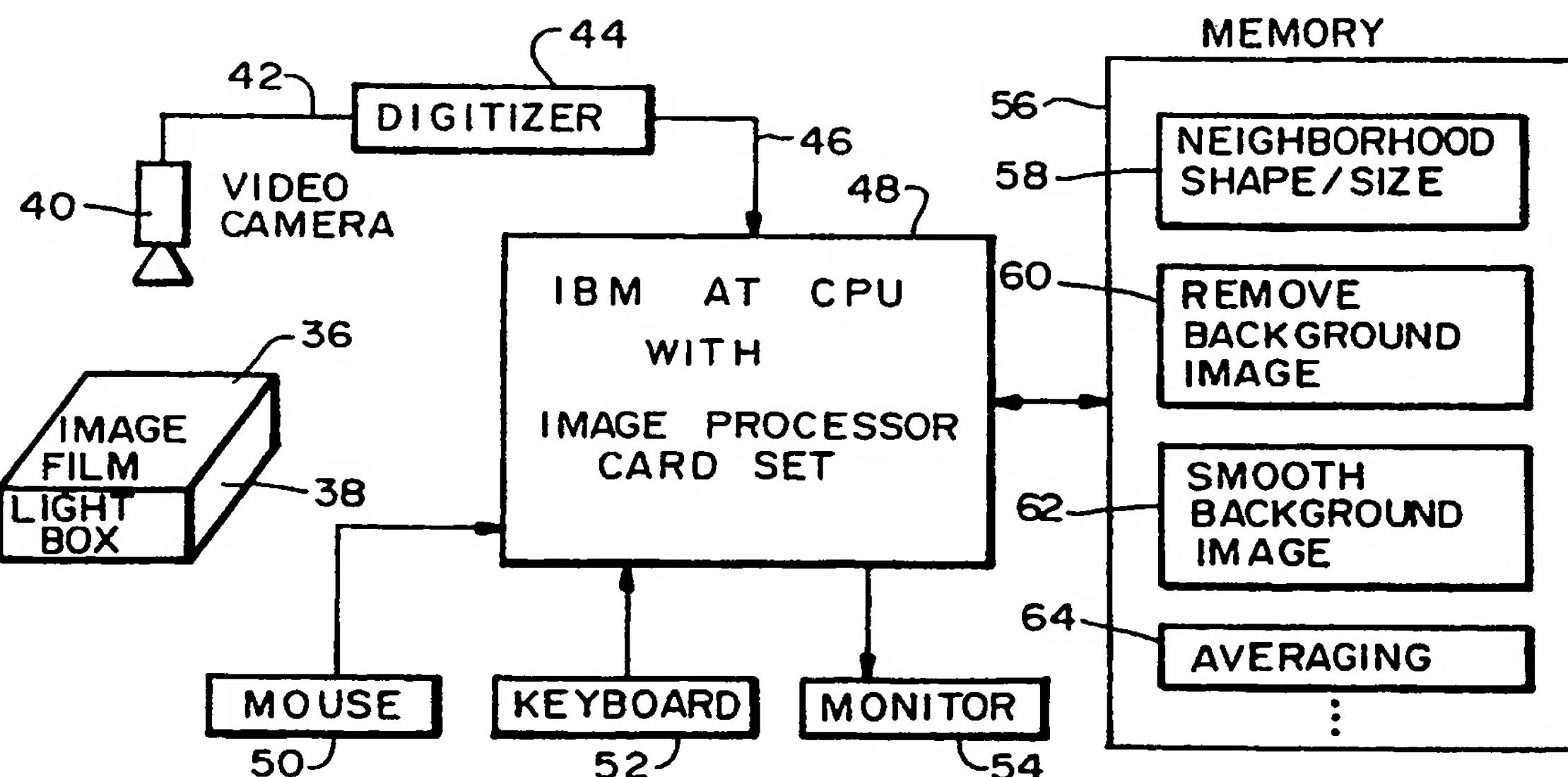


FIG. 3

METHOD AND APPARATUS FOR GENERATING QUANTIFIABLE VIDEO DISPLAYS**Background of the Invention**

The invention pertains generally to the field of image processing, and, more particularly, to the field of generating quantifiable images from digital images representing data spatially as pixel patterns of greater and lesser intensity.

The preferred embodiment of the invention is adapted for analysis of biological data generated in recombinant DNA research and other biological research. Such data includes 2D gels, DNA sequencing gels, gel blots, RFLP, DNA blots, microtiter color, microtiter fluorescence and other types of data presented spatially in an image. Typically, such images consist of a plurality of pixels with areas of pixels of varying intensity representing some amount of a particular DNA or protein with the intensity attributable to the protein being superimposed upon intensity representing background noise and high frequency noise caused by such things as pinholes in the film, penetration of the film by gamma rays etc.

Although the invention will be described in terms of its application to biological data, it will be appreciated that the teachings of the invention have utility in other fields of analysis of images.

A problem in analyzing such data in the past so as to be able to quantify the amount of a protein represented by a particular area of pixels in the image has been how to separate the intensity representing the data from the intensity caused by background noise. Although pixel intensity is the concept used herein to convey the teachings of the invention, pixel value is the general concept contemplated by the teachings of the invention. That is, the pixel values being analyzed may represent something other than light intensity. For example, each pixel in an image may represent the strength of radio transmissions from a small sector of the sky such that the invention could be used in radio astronomy applications.

In the past, such techniques as rolling ball filters have been used for background noise removal from images. Such a teaching is found in a conference paper by Rutherford et al. entitled "Object Identification and Measurement from Images with Access to the Database to Select Specific Subpopulations of Special Interest" published at the E-O Lase and E-O Imaging Conference sponsored by S.P.I.E., January 1987 with the proceedings published in May of 1987. There, the authors describe a method of background correction, i.e., noise removal, by use of a rolling ball filter which effectively takes the minimum pixel value in the ball filter region as the pixel value for

the background image. The resultant image is then subtracted from the digitized image. A pipeline image array processor is used to perform this process. Such a technique however is not optimized for removal of background noise and high frequency noise in all situations because it does not take into account the varying geometric shapes of the data of interest in many varied application and because it does not take into account other application specific phenomenon such as vertical noise strips, dead spaces etc.

Accordingly, a need has arisen for apparatus and a method to optimize the noise removal process for data presented in many varied spatial formats.

Summary of the Invention

According to the teachings of the invention, there is disclosed herein a method and apparatus for background noise removal which uses a variable shape and a variable size kernel or neighborhood of adjacent pixels surrounding or next to the pixel being processed. The value of the pixel being processed is compared to all, or some selected subset, of the pixels in the neighborhood to find the minimum value. This minimum value is then substituted for the value of the pixel being processed. When all pixels have been so processed by comparing them to the values of the surrounding pixels in the corresponding neighborhood (each pixel has its own neighborhood), the resulting image is a "background image". A background image is an image where each pixel has the value of the smallest valued pixel in the neighborhood to which it was compared. Of course, those skilled in the art will appreciate that the background removal process can also be performed on a reverse video image by finding the maximum pixel value in each neighborhood and substituting that value for the value of the pixel of interest corresponding to that neighborhood.

The background image may then be further processed in some embodiments to remove high frequency noise. In one embodiment, high frequency noise is removed by processing the background image to generate a "maximum image", i.e., an image generated from the background image showing the maximum pixel values for each neighborhood in the background image. This maximum image is generated by using a smaller neighborhood than used in generating the background image and then using this smaller neighborhood to process the background image as follows. Each

pixel has its value compared to the values of the pixels in a corresponding neighborhood of surrounding pixels. The maximum value in each neighborhood is then substituted for the value of the corresponding pixel. When this has been done for all pixels, the maximum image is complete. This maximum image is substantially devoid of high frequency, large amplitude noise which dips below the surrounding neighborhood such as is characteristic of pinhole defects in film etc. This maximum image is subtracted from the starting image to generate a "background removed image".

In another embodiment according to the teachings of the invention, the maximum image is used as a starting image in an apparatus to perform a process to remove high frequency, low amplitude noise. In this process, a neighborhood is used which is smaller than the neighborhood used to generate the background image. Each pixel value for a pixel of interest is added to the pixel values for all the other pixels in the corresponding neighborhood. The sum is then divided by the number of pixels in the neighborhood to derive an average pixel value, and the value of the pixel of interest is set equal to this average value. After this is done for all pixels, the resultant image is subtracted from the original image used to generate the background image to arrive at a background removed image.

In another alternative embodiment, the average image may be generated directly from the background image and the resulting image subtracted from the original image to derive the background removed image.

In another alternative embodiment, the image generated by the averaging process may be generated directly from the background image, and the resulting image is used as the input image for the process of generating the "maximum" image. The resulting image is subtracted from the original image to derive the background removed image.

Brief Description of the Drawings

Figures 1(a) and 1(b) show, respectively, a typical autoradiograph of a 1-D gel separation and the same image with the data removed leaving only the background intensity showing.

Figure 2 a drawing showing how the data bearing image pixel value profile compared to the background pixel value profile.

Figure 3 is a block diagram of the hardware which can be used according to the teachings of the invention..

Figure 4 is a flow chart for the process for removing background noise from the image.

Figures 5 through 7 illustrate the process of

background noise removal by comparison to neighborhood pixel values.

Figure 8 is a more detailed flow chart of the background noise removal process.

Figures 9 and 10 are alternative processes for selection of kernel size and shape.

Figures 11 and 12 illustrate how different kernel shapes are optimized for various data applications.

Figure 13 is a flow chart for the preferred embodiment of the process of background noise removal.

Figure 14 is a more detailed flow chart illustrating the process of generating a maximum image.

Figure 15 is a more detailed flowchart illustrating the process of high-frequency, low-amplitude noise removal by averaging.

Figure 16 is a flow chart for the process of generating a percent change image.

Figures 17(a) through 17(e) are the components of a quad display and the quad display itself.

Figure 18 is another type of quad display.

Figure 19 illustrates the concept of linked cursors for the quad display.

Figure 20 illustrates the process for alignment of images 1 and 2 which must be performed prior to the computation of values for the cursor locations in the quad display.

Detailed Description of the Preferred Embodiment

Referring to Figure 1(a), there is shown an image of a typical autoradiograph of a 1-D protein separation. Each of lanes 10 and 24 contains separated bands of radioactively labeled proteins from different samples. For example, lane 10 contains bands 12 and 14 with the difference in pitch of the crosshatching of band 14 indicating that this band is of greater brightness or intensity than the intensity of band 12. Likewise, bands 16, 18, 20 and 22 in Figure 1(a) all have varying degrees of brightness or intensity. A similar situation exists for lane 24, which is separated from lane 10 by a dead space 26. The varying intensity of each band is indicative of the amount of the particular protein or proteins represented by that band which was present on the gel at that particular position.

It is useful to be able to quantify an image such as shown in Figure 1(a) such that the intensity of the various bands can be measured as an indication of the amount of protein represented thereby. The difficulty with this approach, however, is that the various bands have their intensities superimposed upon background noise which, because of its varying intensity across a lane, causes errors. That is, the background noise can be thought of as forming an image of varying intensity which would

still be present even if there were no data represented in Figure 1(a). Figure 1(b) is a drawing showing this background image. The background image has a lane 10' which corresponds to lane 10 in Figure 1(a) and a lane 24' which corresponds to the lane 24 in Figure 1(a). The differences in pitch in the crosshatching of lanes 10' and 24' conveys in pictorial form the variation in the intensity or brightness of the background noise in the lane at various locations. For example, the area 28 in lane 10' has a brighter background intensity than the area 30. By superimposing the image of Figure 1(a) on the image of Figure 1(b), it can be seen that the relatively brighter intensity of band 14, which overlies an area of lesser intensity in the background image, as compared to a less-bright band 18, which overlies an area of brighter background intensity in Figure 1(b). For this reason, the relative intensities of the bands 14 and 18 cannot be used directly to quantify the amount of protein at those respective positions in the gel without creating errors caused by the varying intensity of the background image along lane 10'. Thus, according to the teachings of the invention, the background image of Figure 1(b) is derived by image processing of the image represented by Figure 1(a), and the resulting image is then subtracted from the image of Figure 1(a) to leave a quantifiable data image.

Referring to Figure 2, there are shown comparative intensity profiles through the image of Figure 1(a) to show the effect of background removal. The intensity trace labeled 32 represents the intensity of the original image which includes both intensity attributable to data as well as intensity attributable to background noise. The trace labeled 34 represent the intensity of the original image after background removal and, therefore, represents the intensity attributable to the quantity of a particular protein located at the corresponding location on the gel.

According to the teachings of the invention, a manually manipulated cursor having a variable size and a variable shape may be placed over any band of interest in the background-removed image to determine the intensity of that band attributable to the presence of a protein of interest. The process of determining the intensity caused by the data essentially involves the process of integrating the trace 34 to determine the area under any particular peak. Typically, the result of this integration will be reported at the touch of a key on a computer keyboard.

Referring to Figure 3, there is shown a block diagram of a computer apparatus according to the teachings of the invention. Image film 36, which contains a spatial depiction of the data to be analyzed, is placed on a light box 38. The light box shines light through the image film to create a

pattern of light which has varying spatial intensity in accordance with the data and the background noise. Also, the image may be acquired by shining light on a nontranslucent film such as a polaroid shot. The resulting light pattern contains the data to be analyzed. This light pattern is converted by a video camera 40 into a video signal on line 42 representing an analog form of a raster-scanned version of the image on film 36. This analog signal is digitized in a data converter interface 44 and results in a stream of digital data on bus 46. This stream of digital data is read by a computer 48 and is stored in memory for further image-processing operations. The computer 48 is typically an IBM ATTM personal computer with an image processor card set plugged into the card slots. The image processor card set is an off-the-shelf, image-processing circuit manufactured by Matrox under the trademark MVP-ATTM Image-Processing Card Set. The computer 48 interfaces with the user through a mouse 50, a keyboard 52 and a monitor 54. An external memory 56 stores data and programs. Several software modules according to the teachings of the invention are shown as stored in memory 56. They are: a neighborhood shape/size interfacing module 58; a background removal module 60; a smoothing module 62; and an averaging module 64. The neighborhood shape/size interface module 58 serves to determine the shape and size of a neighborhood or kernel of pixels the values of which will be compared to the value of a pixel of interest in the kernel to determine the spatial intensity patterns of the background image. Typically, the shape of the neighborhood is determined by the computer for the particular application involved and relates to the typical shape of the data patterns to be analyzed. However, in alternative embodiments, the shape of the neighborhood may be set by the user in any of several different ways. For example, at start-up time, or upon switching applications, the computer can prompt the user through monitor 54 to determine what type of data is to be analyzed. After the user responds, either through the keyboard 52 or the mouse 50, the computer can put up either a textual, verbal or a pictorial menu of neighborhood shapes to be used. The user can then indicate which shape to use either by selecting it with mouse 50 or by typing in the code for the shape via keyboard 52 or by stating the shape. Alternatively, the user may sketch the neighborhood shape and/or size to be used through use of the mouse 50. In some embodiments, the shape of the neighborhood will be selected by the computer 48 based upon the user response regarding what type of data is to be analyzed. In some embodiments, a first neighborhood shape will be used to get rid of particular noise patterns having specific shapes followed by

the use of anther shape for the neighborhood which is keyed to the shape of the particular data or application for which the teachings of the invention will be used.

The size of the neighborhood to be used generally depends upon the typical size of the data spatial patterns to be analyzed. In the preferred embodiment, the size of the neighborhood is chosen which has a largest dimension which is two and one-half times the size of the largest data spatial pattern to be analyzed. In the preferred embodiment, the user may be prompted for the desired size for the neighborhood and may respond either in terms of a number or a code for the desired size. Alternatively, the selected shape for the kernel may be displayed on the screen, and the user may adjust the size of the kernel by having the kernel superimposed upon the image to be analyzed and using a "rubber band"-type cursor to adjust the size of the kernel. The details as to how the shape and size of the kernel to be used are selected by the user or by the computer are not critical to the invention.

The details of the remove background image module 60 will be described in greater detail below. The basic function of this module is to determine the level of background intensity throughout the image to be analyzed and to create a background image reflecting that background intensity at all points in the background image. This background image may then be subtracted from the original image in some embodiments to derive a background removed image.

The smooth background image module 62 removes high-frequency, high-amplitude noise (high-amplitude noise for purposes of this invention means noise which dips below the level the surrounding neighborhood) by finding the maximum pixel in each kernel of the background image and setting the value of the pixel of interest in this kernel to the maximum value found in the kernel. When this is done for all pixels and their corresponding kernels "maximum" background image has been completed. This serves to get rid of high frequency, large amplitude noise characterized by pixels of low intensity in the background image such as might be caused by pinholes in the film, gamma rays, etc.

Finally, the averaging module 64 gets rid of high frequency, small amplitude noise in either the background image or the smoothed background image generated by module 62. This is done by averaging all the pixels in a neighborhood and setting the pixel of interest in each neighborhood to the average value. Both modules 62 and 64 will be described in more detail below.

Referring to Figure 4, there is shown a flow chart for a basic embodiment of a process accord-

ing to the teachings of the invention for background removal. The first step, symbolized by block 66, is to acquire the image to be analyzed. Specifically, the image to be analyzed is digitized into a plurality of pixels. These pixels define an image which contains data to be analyzed and displays this data in terms of varying spatial patterns of intensity, color, fill pattern or other means of displaying values for the pixels. How the value for each pixel is depicted is not critical to the invention. Typically, pixel values will be displayed in terms of their intensities. For some applications, the data to be analyzed is shown as dark spots on a lighter background such as autoradiography. In those applications, a "negative" or reverse video image is generated from the acquired image before further processing. In other applications, the data to be analyzed is shown as lighter spots on a dark background. In such applications, the acquired image is used as is without doing a reverse video image. In some embodiments, it is useful to average the original acquired image before further processing to remove the background. This averaging process is identical to the process described below with reference to Figure 15 carried out on the background removed image or the image generated by the process described with reference to Figure 14.

Next, the computer system interacts with the user to select a particular kernel size and/or shape for use in generating the background image, as symbolized by block 68. As noted earlier, the kernel shape is typically selected by the computer based upon the type of data to be analyzed in the preferred embodiment. That is, if the data takes the form of vertical rectangular blocks, as in the case of one-dimensional separations of DNA or proteins, then the preferred kernel shape is usually rectangular. However, if the data to be analyzed takes the form of circular spots such as in DNA library screens, cells tagged with fluorescing antibodies, or images of 96-well microtiter plates, then the preferred kernel shape is circular.

Generally speaking, the size of the kernel should be substantially larger than the size of the largest data area to be analyzed. That is, if the largest data spot to be analyzed is a circle of 2 mm diameter, then the preferred kernel shape and size is a circular area having a diameter sufficient to cause the total area within the kernel to be approximately 2.5 times the radius of the 2 mm diameter data spot. The reason for this size relationship is to insure that at least some background area outside the area of data of interest are included within the kernel. This is necessary to insure that a proper background image is generated. This is because the process of generating the background image involves comparing the value of each pixel in the image to be analyzed to the values of the sur-

rounding pixels to find a minimum value characteristic of the background. Thus, if no background pixels are included within a kernel which happens to be centered over a data spot, then the minimum intensity value which will be found in that kernel will not in fact be representative of background intensity at that location but will be representative of the intensity of the data as superimposed upon the intensity of the background.

As noted earlier herein, the kernel size may be selected by the user using any one of a number of different methods, none of which are critical to the teachings of the invention. Alternatively, the kernel size may be selected by the computer automatically, based on the type of data being analyzed. In the preferred embodiment, the kernel shape is selected by the computer automatically, based upon the data being analyzed, and the kernel size is selected by the user using a "rubber band" cursor to adjust the size of a default kernel which is superimposed over the image of data to be analyzed. The user then touches an edge of the kernel and "drags" it out to an appropriate dimension in some embodiments. In the case of rectangular kernels, the user may touch each of two opposing sides and drag each one individually out to the appropriate dimension so as to obtain the desired size and aspect ratio. This is done after dragging the kernel to a desired position on the image to be analyzed so as to surround the largest area of data shown on the image.

Block 70 represents the process of actually generating the background image using the kernel selected by the user. This process is best understood by reference to Figure 5, which shows a typical kernel or neighborhood 72 of rectangular shape surrounding a pixel of interest 74. Figure 6 shows the relationship of the kernel 72 to the overall image being processed. The pixel of interest 74 is any pixel within the area encompassed by the kernel 72. Although typically the pixel of interest is in the center of the kernel in the preferred embodiment, in alternative embodiments the pixel of interest 74 may be located anywhere within the boundaries of the kernel 72. The pixel of interest 74 is shown in the middle of a raster scan line 76 and is in the middle of a column of pixels 78. As is best seen in Figure 6, the pixel of interest 74 is a single pixel in a line of pixels which together comprise the single raster scan line 76 of the image to be analyzed 80. The image 80 is comprised of 512 raster scan lines like the raster scan line 76 in some embodiments, and there are typically 512 pixels on each raster scan line. The size of the raster is not critical to the invention. The kernel 72 includes several pixels from the raster scan line 76 within its boundaries and includes several other raster scan lines both above and below the raster

scan line 76 although these other raster scan lines are not shown in Figure 6 to avoid unnecessary complexity.

Referring again to Figure 5, the process of generating the background image is accomplished by comparing the value of the pixel 74 to the values of each of the other pixels in the kernel 72 and finding the minimum value pixel and substituting its value for the current value of the pixel 74.

For example, assume that the pixel 74 has a value of 5 on a scale from 1 to 10. Assume also that the pixels 82, 84 and 86 in the raster scan line 88 have values of 7, 4 and 1, respectively. When the value of the pixel 74 is compared to the value of the pixel 82, the value of the pixel 74 will be less, and no substitution is made. When the value of the pixel 74 is compared to the value of the pixel 84, it will be found that the value of the pixel 84 is less than that of pixel 74, and a substitution will be made such that the value of pixel 74 is rewritten to be a 4. When pixel 74 is compared to pixel 86, it will be found that pixel 86 has a still smaller value of 1, and this value of 1 will be written to pixel 74.

This process continues until all the other pixels in the kernel 72 have been examined. Each time a new minimum is found, that value is used to update the value of the pixel 74. When this comparison process is completed for every pixel in the kernel 72, the final value of the pixel 74 will be established for use as one pixel in the background image. This process of comparing each pixel in the image 80 of Figure 6 to all the pixels in a kernel comprised of a plurality of pixels adjacent to the pixel of interest is repeated for every pixel in the 512 by 512 pixel array of the image 80. When it has been completed, the complete background image has been generated.

The process symbolized by block 70 contemplates simultaneous processing for each pixel in the image 80 such that each pixel in the image is compared simultaneously with one other pixel in a kernel of pixels adjacent to the pixel of interest, and this process is repeated simultaneously for all pixels until all the pixels of interest have been compared to all the pixels and their respective kernels. This substantially increases the speed of processing to generate the background image. In some alternative embodiments, only a selected subset of the other pixels in each kernel will be sampled. In still other alternative embodiments, the process of comparing each pixel with the adjacent pixels in its kernel may be done serially such that each pixel of interest is compared simultaneously with all or some subset of all the pixels in the corresponding kernel such that the entire kernel is searched in a single machine cycle or however many machine cycles are necessary to make the comparison between one pixel and another. After

this process is accomplished, another pixel of interest from the image to be analyzed is selected and simultaneous comparison is made of this pixel with all or some subset of the pixels in the kernel corresponding to that pixel.

Note that as the pixel of interest moves along a raster line, a corresponding kernel surrounding that pixel of interest is selected to keep the pixel of interest in the same relative location within the boundaries of the kernel.

Note also that the background image generation process must be performed using a copy of the image such that the updating of the values of each pixel of interest occurs in the copy. This is necessary because each pixel of interest is a neighboring pixel for the kernel corresponding to some other pixel of interest. Therefore, if the value of the pixel of interest in the image to be analyzed is updated prior to having processed all the other pixels in the image, there will be distortions and errors caused in the processing of other pixels whose kernels overlap the pixel which had its value changed.

After the background image is generated, it is subtracted on a pixel-by-pixel basis from the image to be analyzed, as symbolized by block 90 in Figure 4. That is, the value of pixel 1 in raster scan line 1 of the background image is subtracted from the value of pixel 1 in raster scan line 1 of the image to be analyzed.

After this process is completed, the resultant image is displayed as a background-removed image on the monitor 54 in Figure 3, as symbolized by block 92 in Figure 4.

Referring to Figure 7, there is shown symbolically the process by which whole image processing occurs in the computer apparatus according to the teachings of the invention. Simultaneous comparisons of each pixel in the image to be analyzed 80 to a single one of the adjacent pixels in the corresponding kernel is accomplished by the use of offset and compare commands to the image processing board set in the IBM ATTM. For example, assume that the image to be analyzed 80 is comprised of 9 pixels labeled A through I. Assume also that the heavy line 94 defines the boundaries of a kernel for a pixel of interest E. The phrase "pixel of interest" as the phrase is used herein means the pixel being processed which has its value compared to the other pixel values in the kernel or neighborhood and which has its value replaced if the test of the comparison is satisfied, i.e., in the case of generation of the background image, if the neighboring pixel selected from the other pixels in the kernel has a value which is less than the value of the pixel of interest.

To further the illustration, assume also that the heavy line 96 defines the boundaries for a kernel

for the pixel I. Similarly, a kernel comprised of the pixels D, E, G and H can be defined for the pixel H, and a kernel comprised of the pixels B, C, E and F can be defined for the pixel F.

Now assume that the first comparison in the process of generating the background image is to compare the values of the pixels of interest in all these kernels, i.e., the pixels at the lower right-hand corner of each kernel, to the values of the pixels at the upper left-hand corner of each kernel. Thus, in the case of kernel 94, the value of pixel E, the pixel of interest, is compared to the value of the pixel A. If the value of A is less than the value of E, then the value of A will be substituted for the value of E in a copy of the image 80. This copy is shown to the right and is labeled the "offset" image. Simultaneously, the value of pixel I is compared to the value of the pixel E. If the value of E is less than the value of I, then the value of I will be overwritten with the value of E in the offset image.

The offset image 98 is originally a copy of the image to be analyzed 80. To facilitate simultaneous comparison of some or all of the pixels in image 80 to one of the pixels in their corresponding kernels, the offset image 98 is used as follows. Imagine the offset image 98 is a transparency which can be placed over the image 80 and shifted about so as to align any pixel with any other pixel. For the first comparison in the hypothetical example, the pixel E will be compared with the pixel A. To implement this, the memory map of digital data representing the "transparency", i.e., the offset image 98, is electronically placed over the memory map of digital data representing the original or "acquired" image 80 such that the offset image pixel A' lies on top of the pixel E and the offset image pixel B' lies on top of the pixel F in image 80. This aligns the offset image with the image 80 such that each pixel in the image 80 which has a pixel in the offset image 98 overlying it will be aligned with the pixel to which it is to be compared for the first round of comparisons. That is, the pixel E will be aligned with the pixel A' and the pixel F will be aligned with the pixel B'. Likewise, the pixel H will be aligned with the pixel D' and the pixel I will be aligned with the pixel E'. Examination of the kernels of image 80 indicates that for each of the overlapped pixels in image 80, i.e., the pixels of interest, the overlying pixel will be the pixel in the upper left-hand corner of the kernel in image 80 which corresponds to each pixel in image 80 which is overlapped. The offset for this first round of comparisons, then is "1 pixel up, 1 pixel left".

The value of each pixel in image 80 which is overlapped is then compared to the value of the pixel which overlaps it in image 98. If any of the pixel values in image 98 are less than the pixel values in pixel 80 which they overlie, the minimum

value is used to update the pixel in the offset image corresponding to the pixel in the image 80. The pixels in the offset image 98 which correspond to the pixels in the image 80 are those with the same "relative address". To aid in understanding the meaning of the phrase "relative address" one can think of the labels A, B, etc. for the pixels in image 80 as their relative addresses or labels in memory. Thus, if the value of the pixel A' is less than the value of the pixel E, then the value of the pixel A' is written into the memory location storing the value of the pixel E'. The same process occurs for all other overlapped pixels.

Pixels in image 80 which are not overlapped, such as the pixels A, B, C, D and G, are compared to "dummy" pixels (constants or locations in the memory map which are loaded with constants) in the offset image 98 which have had their values artificially set to the maximum intensity level. This has the effect of causing the non-overlapped pixels in image 80 to never have their corresponding pixels in image 98 replaced with a minimum. The dummy pixels are labeled with Xs in image 98.

Thus, after one round of comparisons, each pixel in the image 80 will have been compared to one of the pixels in the corresponding kernel or a dummy pixel. To complete the process of generating the background image, a new offset or shift is performed to align the offset image with the image 80 such that the next pixel to be examined in each kernel overlies the pixel of interest in each kernel. Thus, for example, if the pixel E is to be compared next with the pixel D, then the offset image 98 is shifted such that the pixel D' overlaps the pixel E, and the pixel E' overlaps the pixel F. Then a new round of comparisons is made simultaneously to compare all overlapped pixels with the values of their overlapping pixels with appropriate updating where new minimums are found.

This offset/compare/update process occurs as many times as there are pixels in each kernel to be compared with the pixel of interest in each kernel. It is not necessary that all neighboring pixels in every kernel be compared with the pixel of interest to generate the background image. In fact, in some embodiments, only a sampling of the other pixels in each kernel is used to generate the background image.

The above-described process is graphically illustrated in the flow chart of Figure 8. The process illustrated in Figure 8 corresponds to the process symbolized by block 70 in Figure 4. No further discussion of Figure 8 is deemed necessary since it is self explanatory in light of the discussion above. Of course, those skilled in the art will appreciate that the background removal process can also be performed on a reverse video image by finding the maximum pixel value in each neighborhood

and substituting that value for the value of the pixel of interest corresponding to that neighborhood. This technique is deemed sufficiently self-explanatory as to not warrant further discussion.

5 Referring to Figure 9, there is shown a flow chart for the preferred embodiment of the process symbolized by block 68 in Figure 4. Basically, the process represented by the flow chart of Figure 9 represents an embodiment where the computer prompts the user to indicate what type of data is being analyzed and then selects the appropriate kernel shape based upon the user response. The user is then prompted to select an appropriate size for the kernel given the shape selected by the computer.

10 Referring to Figure 10, there is shown an alternative embodiment of the process symbolized by block 68 in Figure 4. The difference between the embodiment shown in Figure 9 and Figure 10 is that in the embodiment of Figure 9, the computer selects the kernel shape based upon the user-supplied data regarding the type of application data that is to be analyzed. In Figure 9, the user then selects the kernel size. In the embodiment of Figure 10, once the user supplies data regarding what type of application the machine is to be used on, the user is then prompted to select the kernel shape as well as to select the kernel size. In yet another alternative embodiment, the computer may select both the shape and the size based on the application data supplied by the user.

15 Figure 11 shows an example of two different kernel shapes for use on band type data such as is found in one-dimensional gel protein separations. The kernel shape indicated by the dashed line labeled 100 is not a good shape to use in this situation since it overlaps a portion of the dead space 102 which lies between band 104 and band 106. Since there is no valid background noise in the dead space 102, the kernel shape 100 will distort the background image, thereby creating errors. The kernel shape 108 is a better shape to use for this situation since it includes areas of the band 104 outside the data band of interest 110 but does not include any pixels in the dead space 102.

20 Figure 12 illustrates a situation where differing kernel shapes are useful. The more or less circular data spots in Figure 12 would be best quantized by the use of a circular kernel such as that shown in dashed lines at 112. However, certain types of data include vertical strips of noise in the image such as is shown at 114. In these situations, it is useful to do a two-stage background image generation process. The first stage of this process is to use a slender vertical kernel which is thinner than the thinnest noise streaks in the image. Such a kernel is shown at 116 in dashed lines. This kernel shape can effectively remove noise strips such as shown

at 114. After a background image is generated using the kernel shape of 116, the second stage of the background image generation process is entered where the kernel shape changes to that shown at 112. Background image generation then proceeds operating upon the image generated using the kernel 112 on the acquired image.

Referring to Figure 13, there is shown a flowchart for the preferred embodiment of a process according to the teachings of the invention. The first three stages in the process are symbolized by blocks 66, 68 and 70. These three stages are identical with the first three stages in the process symbolized by the block diagram of Figure 4. Likewise, the last two stages, symbolized by blocks 90 and 92 are identical to the process stages symbolized by blocks 90 and 92 in Figure 4. The difference between the process symbolized by Figure 4 and the process symbolized by Figure 13 lies in processed stages symbolized by blocks 120 and 122.

The process represented by block 120 is a series of steps to remove high frequency, large amplitude noise from the background image generated by the process represented by block 70. Such high frequency, large amplitude noise typically results from pinholes in the film, the penetration of gamma rays through the film or other such phenomena which cause large spikes in the intensity values of pixels. The details of this process will be given with reference to Figure 14.

Referring to Figure 14, there is shown a flowchart symbolizing the process steps implemented by block 120 in Figure 13. The process represented by Figure 14 essentially generates a maximum image from the background image generated by block 70 in Figure 13. This is done using a smaller kernel than was used to generate the background image and by searching throughout the kernel to find the maximum pixel value and using that value to update the value of the pixel of interest within that kernel. This process is repeated for all or some subset of all of the pixels in the image to generate a maximum image.

The first step in generating a maximum image is symbolized by block 124 representing the process of making a copy of the background image generated in the process represented by block 70 in Figure 13.

Next, a kernel is selected as symbolized by block 126. This kernel should be smaller than the kernel used to generate the background image and, generally, is very small in that it has an area which corresponds to the area of pinhole type defects.

Next, in block 128 the copy image is offset to align any selected pixel in each kernel with the corresponding pixel of interest in the background

image. This process is identical to the process described with reference to FIGS. 6, 7 and 8 except that a much smaller kernel is used.

Block 130 represents the process of comparing each pair of aligned pixels to determine which one has the maximum value. This process is also identical to the process used in generating the background image, but the neighboring pixel in the kernel is checked to determine if its value is greater than the value of the pixel of interest rather than less than as in the case of generating the background image.

Block 132 represents the process of updating the pixel in the copy image corresponding to the pixel of interest in the background image for each aligned pixel pair where the aligned pixel in the copy image has a value which is greater than the aligned pixel of interest in the background image. This process also corresponds to the background image generation process described with reference to FIGS. 6, 7 and 8 and need not be further described here.

Next, in block 134, the copy image is offset to a different location to align another pixel in each kernel with the pixel of interest in the corresponding kernel in the background image.

Then the test of block 136 is performed to determine if all the other pixels in the kernel selected for generation of the maximum image from the background image have been checked against the pixel of interest in each kernel. If all the neighboring pixels each kernel have been checked, the test of block 136 causes branching to block 138 where exit to the next step in the process is performed based upon completion of the maximum image. The next step in the process would be block 122 in Figure 13 in the preferred embodiment. However, in alternative embodiments, the next step in the process would be block 90 in Figure 13 or some other image processing step. If the test of block 136 indicates that not all the pixels in the kernel have been checked for a value which exceeds the value of the pixel of interest, then a branch to block 130 is performed where each pair of aligned pixels in all the kernels are checked as previously described. Steps 130, 132, 134 and 136 are performed as many times as there are neighboring pixels to the pixel of interest in each kernel. These steps 130, 132 and 134 along with step 136 result in the simultaneous processing of the entire image.

Referring to Figure 15, there is shown a flowchart of the process represented by block 122 in Figure 13. This process smooths the background image by averaging all of the pixels in a kernel thereby removing high frequency, low amplitude noise. The process of Figure 15 can be carried out using the background image generated by the pro-

cess of block 70 as the starting image in some embodiments or upon the image generated by the process represented by block 120 in Figure 13 as the starting image. That is, alternative embodiments to the process symbolized by the flowchart at Figure 13 are to perform either the process represented by block 120 alone or the process represented by block 122 alone or both between the processes represented by blocks 70 and 90. Accordingly, the first stage in the process represented by Figure 15 is symbolized by block 140 and making a copy of the starting image where the starting image may be the image generated by the process represented by block 70 in Figure 13 or the image generated by the process represented by block 120.

Next, in block 142 a kernel is selected. In some embodiments, the computer may automatically select this kernel, and in other embodiments, the user may select a kernel. In either embodiment, the size and/or shape may be variable. The size of the kernel is generally substantially smaller than the kernel used to generate the background image as selected in block 68 of Figure 13.

Block 144 represents the process of offsetting the copy image from the starting image to align one of the pixels in each kernel having the shape and size selected in block 142 with the corresponding pixel of interest in each kernel. This process is similar to the process represented by block 128 in Figure 14 and the process discussed with reference to FIGS. 5-8.

Next, in block 146 the pair of aligned pixels are summed with the sum being used to update the pixels in the copy image which are aligned with pixels in the starting image. In some embodiments, pixels which have no overlying pixel in the copy image are summed with a constant.

In block 148 a process is carried out to offset the summed image generated by the process of block 146 to align another pixel from each kernel with the corresponding pixel of interest in each kernel.

The test of block 150 is to determine if all other pixels in each kernel have been aligned with and summed with the pixel of interest in each kernel with the total being used to update the value of the pixel and the summed image which corresponds to the pixel of interest in each kernel. In other words, steps 144, 146 and 148 are performed a number of times equal to the number of pixels in a kernel less one. This means that every other pixel in the kernel is aligned with the pixel of interest and summed therewith. If the test of block 150 determines that not all pixels in each kernel have been summed with the pixel of interest, branching back to the process represented by block 146 occurs. If all other pixels in a kernel have been summed, the

process of block 152 is performed. In this process, each pixel in the summed image has its value divided by the number of pixels in each kernel. This generates a value for each pixel in the summed image which is the average value for all pixels and the kernel. This average value is then used to update the value of the pixel in the summed image.

The resultant image is used by block 90 in Figure 13 as the background image which is subtracted from the acquired image to leave a background removed image which is displayed by the process of block 92 in Figure 13.

Block 154 represents the process of repeating the smoothing or averaging process if desired or necessary. If not desired or not necessary, exit to block 90 in Figure 13 is performed.

Referring to Figure 16, there is shown a flow chart for a process of generating a percent change image useful in comparing two data images. Preferably, this process is carried out on a background removed image, but it may also be carried out between any two images. The process starts as symbolized in block 170 by subtracting the value of a pixel in image 1 from the value of a corresponding pixel in image 2. Typically, this process would be carried by subtracting pixel 1 of line 1 of image 1 from pixel 1 of line 1 of image 2 and storing the difference. However, the order in which the pixel are process is immaterial as long as corresponding pixels, i.e., pixels having the same relative location in the image are subtracted. An additional feature in some embodiments including the preferred embodiment is to clip the noise from the percent change image by implementing a rule limiting the allowable differences. The rule is, if the sum of the values of the two pixels being compared is less than a noise clipping constant (fixed for any application but modifiable by the user), then the difference is set to 0. This rule has the effect of eliminating salt and pepper noise from the percent change image which can result when the differences between the images at substantially all the pixels is small.

Next, in step 172, the difference value is multiplied by a constant. This constant may, in some embodiments be fixed for all comparisons, but, in the preferred embodiment, the constant is selected by the computer based upon the application, but the user can override the selection and supply a new constant.

Step 174 represents the process of dividing the difference between the two pixel values by the minimum of the pixel values compared. This step generates a percentage change number indicating how much the intensity or value of the one of the pixels varies from the value of the other pixel. These percentage numbers vary from 255% to 1%

because the maximum pixel intensity value is 255 and the minimum pixel intensity value is 1.

The significance of the constant is that it controls what percentages changes can be seen in the final percent change image and the intensities at which the percent change pixels are displayed. That is, the constant controls the range of percentage differences which can be seen by stepping up the percentage change numbers to larger numbers. However, the maximum intensity value which can be displayed is 255. Therefore, selection of larger constants can lead to clipping since the resulting percentage change numbers after multiplication can exceed 255. In the preferred embodiment, the constant ranges from +1 to +256, but in other embodiments, any number between 0 and any positive number could be used including fractional numbers.

In step 176, the result from step 174 is added to another constant to set the 0% change number equal to some reference intensity value. In the preferred embodiment, intensity values range from 1 to 255, and the constant used in step 176 is 127 such that the 0% change falls in the middle of the gray scale.

In step 178, the results from step 176 are clipped between 0 and 255 for purposes of using the results on a video display. The result is stored in a percent change image file or framestore.

Step 180 represents the process of repeating steps 170 through 178 for all pixels in both images to complete generation of the percent change image. The image may then be displayed for inspection and analysis.

Referring to Figures 17(a) through 17(b), there are shown a plurality of images which together comprise the components of a quad display and the quad display itself. The purpose of a quad display is to facilitate visual comparisons and analysis of data bearing images. The components of a quad display are the two compared images used to generate the percent change image, the percent change image itself, and a fourth image which is called the difference image. This difference image is at each pixel the difference between the two corresponding pixels in images 1 and 2, divided by 2 and added to 127. The percent change image is the image generated by the process of Figure 16. The term "corresponding pixels" for the description of the difference image means the same thing as that term as used for the percent change image.

If the display hardware is large enough to display four complete images of the size of image 1, then all four images are simultaneously displayed as arranged in Figure 17(e). If however, the display apparatus can display only one image having the number of pixels in image 1, then several alternative embodiments are possible. First, each image

may be sampled to develop of subset of pixel for that image. Such sampling can include selecting every other pixel on every other line such that one-fourth of the total number of pixels remain to be displayed. In another alternative embodiment, a selection of one-quarter of each image is made, and that quarter of an image is displayed in the corresponding portion of the quad display of Figure 17(e). The quarter of each image selected can be selected by the user or by the computer based upon the application or can be set to a default selection by the computer and modifiable by the user. The possibilities for which one-quarter to select are numerous and include one quadrant of each image, a horizontal strip amounting to one-fourth of the pixels or a vertical strip amounting to one-fourth of the pixels.

In the preferred embodiment, selects which quarter of each image to be displayed by manipulation of a "linked" cursor in a scout image. The scout image is, in the referred embodiment, a 2 to 1 minification or subset of image 2. This minification is performed by selecting every other pixel of every other line and displaying the result as the scout image in the lower left quadrant of the display. The locked cursor is a fixed cursor encompassing one-fourth of the total area of the scout image. The user manipulates the position of this cursor by manipulation of a mouse, track ball or light pen etc. Also, the position of the cursor can be positioned by default in one of the four quadrants of the scout image and this position can then be modified by the user. As the user moves the cursor in the scout image, a corresponding cursor in each of the other four images moves synchronously to encompass the pixels corresponding to the pixels encompassed by the cursor in the scout image. When the user, selects a position for the cursor in the scout image as the final position, the corresponding pixels in the other three images are selected and displayed in the corresponding quadrants of the quad display shown in Figure 17(e). Simultaneously, all the pixels in the difference image corresponding to the selected pixels in images 1, 2 and the percent change image are selected and displayed in the lower left quadrant of the quad display.

In other embodiments, the quad display may be arranged differently. An example of such an alternative arrangement is as shown in Figure 18. Any combination of hardware and software to implement this process and cursor manipulation will suffice for purposes of practicing the invention. The preferred embodiment of computer code which when combined with the hardware illustrated in Figure 3 will implement the teachings of the invention is given in Appendix A.

Referring again to Figure 17(e) there is shown

the positions for four measurement cursor locations covering four sets of corresponding pixels. These cursor locations are shown at 182, 184, 186 and 188 in exemplary rectangular shape. The shape and size of the cursors can be selected by default by the computer and be modifiable by the user or can be selected outright by the user.

After the position, shape and size of the cursor is established, the computer calculates some quantity related to the values of the pixels inside the cursor. Examples of what these quantities can be are: 1) absorption meaning the sum of all the pixel values within the cursor in preselected units, which can be optical density, counts per minute, etc. for images 1 and 2 only; 2) the average value of all pixels in each cursor location for images 1 and 2; 3) square millimeters of optical density meaning absorption in optical density units divided by the number of pixels per square millimeter. Once these values are calculated for images 1 and 2, the values for the corresponding sets of pixels in the cursor locations in the percent change and difference images are automatically determined. That is, for the percent change image, the value returned for the cursor location is calculated according to the algorithm specified in Figure 16 as modified by omission of multiplication by the constant and addition of the second constant. That is, the number returned for the cursor location in the percent change image is the value determined for the cursor in image 1 minus the value for the cursor in image 2 divided by the minimum value between these two numbers.

Likewise, the value returned for the cursor in the difference image is the value of the difference between the values returned for the cursor locations in images 1 and 2 divided by 2.

Figure 19 clarifies how the cursor manipulated by the user in the 2 to 1 minified scout image (subset of image 2) corresponds to one-quarter of the pixels in the full size image 2 at the same relative location in the image.

Referring to Figure 20, there is shown a diagram illustrating the process of alignment of images 1 and 2 which is necessary for the computation of values for the pixels in the cursors in the quad display. Figure 20(a) represents the camera input video data that defines image 2. Figure 20(b) illustrates an already acquired image 1 stored in a frame buffer. The corresponding pixels from these two images are combined according to the algorithm specified in Figure 20(d) to generate the image of Figure 20(c) on the display. The user then manipulates image 2 under the camera until the displayed image calculated per the equation of Figure 20(d) shows minimal difference between image 1 and image 2. When this condition exists, the user so indicates, and the pixels of the image

of Figure 20(a) are captured in a frame buffer as the final image 2 for use in the processing described above to return the values for the selected cursor locations in the quad display shown in Figure 17.

Although the invention has been described in terms of the preferred and alternative embodiments disclosed herein, those skilled in the art will appreciate numerous modifications which can be made without departing from the spirit and scope of the invention. All such modifications are intended to be included within the scope of the claims appended hereto.

Claims

1. An apparatus for removing background noise from an image, comprising:
means for digitizing an image into a plurality of pixels defining a first image, each pixel having a value, and for making and storing a copy of said first image as a copy image;
means for generating a background image from said copy image by simultaneous processing on each said pixel, said simultaneous processing comprising, for each selected pixel in said copy image, comparing the value of said selected pixel with the value of another pixel in a group of pixels adjacent to said selected pixels and replacing the value at said selected pixel with the value of said other pixel if said other pixel's value is less than the value of said selected pixel, and repeating said comparison and replacement process for at least selected ones of said other pixels in said group; and
means for subtracting said background image from said first image to generate a background-removed image.
2. The apparatus of claim 1 further comprising means for displaying said background-removed image.
3. The apparatus of claim 1 wherein said means for generating includes means for selecting said other pixels in said group so that said other pixels define a predetermined shape.
4. The apparatus of claim 3 wherein said means for selecting includes means for selecting said other pixels so as to define a group with a predetermined shape.
5. The apparatus of claim 1 wherein said means for digitizing creates a digital image that displays data in spatial patterns having predetermined size and shape characteristics, and wherein said means for generating includes means for selecting said other pixels in said group includes means to select said other pixels so as to define a group having predetermined size and shape characteristics relative to said size and shape char-

acteristics of said data.

6. The apparatus of claim 5 wherein said means for selecting selects said other pixels so as to define said group with a shape which substantially matches the shape of a selected data shape.

7. The apparatus of claim 6 wherein said means for selecting includes means for selecting a variable size for said group such that said group size can be substantially matched to the size of a selected area of data.

8. An apparatus for removing background noise from a digital image which displays data spatially as a plurality of pixels in a raster display, each pixel having a value, comprising:

means for digitizing an image containing said data and background noise to generate a first image; means for removing said background noise by repeated simultaneous processing of selected groups of pixel pairs between a copy of said first image hereafter called a copy image and said first image to generate a background image from said copy image; and

means for subtracting said background image from said first image.

9. The apparatus of claim 1 wherein said selected group of pixels includes a kernel of pixels in said copy image which define a shape and size in said copy image which have predetermined relationships to the shape and size of selected data in said first image.

10. The apparatus of claim 8 wherein said means for removing includes means to select said pixels in said kernel to define a predetermined shape relative to the shape of data to be analyzed in said first image and further comprising means to select a variable sized group of said pixels in said kernel so as to maintain said predetermined shape but sized according to an input signal.

11. The apparatus of claim 8 wherein said means for removing includes means to select said pixels in said kernel so as to have a shape which matches the typical shape of data to be analyzed in said first image and so as to have a size which is larger than the largest sized group of data pixels to be analyzed.

12. The apparatus of claim 9 further comprising means to remove high-frequency, large-amplitude noise from said background image to generate a smoothed image.

13. The apparatus of claim 12 further comprising means for removing high-frequency, low-amplitude noise from said smoothed image to generate a filtered background image.

14. The apparatus of claim 8 further comprising means for removing high-frequency, low-amplitude noise from said background image from said first image.

15. The apparatus of claim 8 further comprising

means for removing high-frequency, large amplitude noise from said background image before subtracting said background image from said first image.

16. An automated noise removal system in a system to graphically display data spatially as areas of varying intensity on a video display to preserve the intensity of data-bearing data displayed in spatial features of greater than a predetermined size while removing background noise also displayed graphically and spatially on a video display comprising:
 a uniform illumination light box on which a transparent or translucent medium is placed, said medium having spatially depicted thereon the data to be analyzed;
 a video camera positioned adjacent said light box so that there is an optical pathway therebetween, said camera providing a video output comprising an analog video signal depicting said data on said medium in terms of the spatial patterns of light intensity of light from said light box which passes through said medium with said light intensity being modulated by the spatial patterns of data and background noise depicted on said medium;
 converter means coupled to receive said analog video signal for converting said analog video signal to a stream of digital data and for storing said digital data in a memory to define a digital first image comprised of a plurality of pixels arranged in rows and columns spatially displaying said data along with background noise;
 background removal means coupled to said converter means for simultaneously comparing the intensity value at each pixel in said first image with a corresponding, predetermined intensity value of a pixel in an offset image, where said offset image is a copy of said first image but offset from said first image by a predetermined number of rows and columns, and at each pixel location in said offset image establishing the intensity value as the intensity value which is smallest as between the pair of compared pixel intensity values which correspond to said pixel location in said offset image and for repeating the offsetting and comparison and writing of intensity values for the offset image for each of a plurality of different offset values defining a neighborhood shape for a predetermined group of pixels in said first image thereby establishing said offset image as a background image where each selected pixel's intensity value corresponds to the minimum intensity value for all pixels in a group of pixels in said first image which are adjacent to the pixel which corresponds to said selected pixel when there is a zero row-and-column offset, said group of pixels defining a shape having the shape of said neighborhood;
 means for subtracting said background image from

said first image on a pixel-by-pixel basis to generate a background-removed image; and means for converting said background-removed image to a video signal and for displaying said video signal on a video display.

17. An operator-interactive automated noise background removal system to preserve the amplitude of data-bearing spatial features greater than a prescribed size while removing background and high-frequency noise from an image of biological data acquired from an autoradiograph, electrophoresis gel, fluorescence gel, photographic film or other media, said system comprising: a means for displaying an image containing data shown by spatial patterns of varying intensity; image conversion means for generating video output data from said image and positioned adjacent said means for displaying said image so that there is an optical pathway therebetween, said image conversion means for converting said image to video output data at a video output; background detector means connected via an analog-to-digital converter pathway for receiving video output data and converting said video data to digital data, said background detector means processing said digital data so as to detect valid background values within the image of data; computer means connected to said background detector means and having an interactive mode for the operator to specify upper size bounds of valid spatial features, said background detector determining the background neighborhood used in surrounding spatial features of the data; monitor means connected to said background detector means and responsive to said video output for displaying a television image of said background-removed data;

18. The system of claim 17, wherein said background detector system means comprises means for converting said optical image data to digital image data and for causing said optical image data to be, upon receipt of a reverse command, converted to reverse video digital data after said conversion to digital image data.

19. The system of claim 18, wherein said means for converting comprises an analog to digital converter.

20. The system of claim 17, wherein said background detector means comprises first, second and third discriminators for detecting when said received digital data is valid signal comprising spatial features in the biological data.

21. The system of claim 20, wherein said first discriminator means comprises means for generating a background image which is subtracted from said image of biological data.

22. The system of claim 21, wherein said background image comprises digital image data which

consists of a rectangular array of pixels each of whose intensity is the minimum within a neighborhood of each pixel in said biological image data.

5 23. The system of claim 22, wherein said array of pixels comprises digital data having digital intensity values which are shades of gray when displayed on said monitor means.

10 24. The system of claim 20, wherein said second discriminator means comprises means for determination of a neighborhood size for use in discriminating out noise which enables measurement of the amplitude of features and objects in said image of biological data where the base plateau beneath the features and objects is nonuniform.

15 25. The system of claim 22, wherein said third discriminator means comprises means for smoothing of said background image by removing or damping high-frequency, low-amplitude noise in said background image of biological data.

20 26. The system of claim 22, wherein said fourth discriminator means comprises means for clipping of said background image so as to clip noise which is high frequency as compared with the frequency of the signal for said data-bearing spatial features which is also high amplitude relative to the amplitude of the signal in said image of biological data where data-bearing spatial features are not present.

25 27. The system of claim 17, wherein said background detector includes means for subtraction of said background image from said image of biological data which preserves data-bearing spatial features and enables measurement of the amplitude of the signal comprising data-bearing spatial features within said image of biological data.

30 28. The system of claim 24, wherein said second discriminator means further comprises means for selecting neighborhood size through user interaction to separate data-bearing spatial features in said images of biological data so as to pick a neighborhood size and shape suited to enable measurement of quantity of biological materials represented by multiple data-bearing spatial features in close proximity.

35 29. The system of claim 17, wherein said computer means is connected to said image conversion means for receiving video output data therefrom, said computer means comprising a video interface for converting said video output data to digital signals and storing the digital signals.

40 30. The system of claim 17, wherein said computer means comprises an interface circuit and a computer connected thereto, said interface circuit converting digital signals received from said computer to analog signals and sending said analog signals to said monitor means, in response to which said monitor means displays said background-removed images of valid spatial fea-

tures.

31. An apparatus for removal of noise from a digital image displaying data spatially as a plurality of pixels on a raster-scanned video display comprising:
 a background removal circuit for making a copy of said digital image and comparing a selected pixel in said digital image to a neighborhood of adjacent pixels using said copy and finding the minimum pixel value in said neighborhood and setting a pixel in said copy corresponding to said selected pixel to said minimum pixel value and for doing this process simultaneously for a predetermined number of pixels in said digital image to convert said copy to a background image;
 a subtracter for subtracting said background image from said digital image to remove noise from said digital image.

32. The apparatus of claim 31 further comprising a circuit for receiving data regarding the size and shape of said neighborhood best suited for optimal noise removal and for causing said background removal circuit to use such a neighborhood in noise removal.

33. The apparatus of claim 32 further comprising a high-frequency filter in said background removal circuit for removing high-frequency noise from said background image before subtracting said background image from said digital image.

34. A method of removing noise from a data-bearing image spatially displaying data, comprising the steps of:
 simultaneously comparing each pixel in said image to a neighborhood of adjacent pixels and setting said each pixel to the minimum value found in said neighborhood to generate a background image;
 subtracting said background image from said data-bearing image.

35. The method of claim 34 further comprising the step of selecting the size and shape of said neighborhood for optimum removal of noise from said data-bearing image given the size and shape of said spatial displays of data.

36. The method of claim 35 further comprising the step of removing or damping high-frequency noise in said background image before subtracting said background image from said data-bearing image.

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000000 80 0B 00 09 61 63 71 39-36 67 6F 2E 63 61 88 07 ... acq96go.ca..
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0000B0 68 00 06 0B 0A 01 DD 9A-0B 00 02 FF 03 FF 04 FF h.....
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0000D0 01 00 8C 19 00 0A 5F 5F-61 63 72 74 75 73 65 64__acrtused
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000110 5F 67 65 74 5F 70 72 6F-62 65 31 5F 6E 61 6D 65 .._get_probe1_name
000120 00 DF B4 15 00 12 64 65-66 69 6E 65 5F 65 0C 6Cdefine_ell
000130 6E 70 73 65 5F 39 36 77-00 28 8C BC 00 04 5F 6F base_96w._c
000140 6E 65 00 0B 5F 73 70 72-69 6E 74 06 00 10 5F 67 .._probe2_name..
000150 65 74 5F 70 72 6F 62 65-32 5F 6E 61 6D 65 00 04 .._two..._menu_up..
000160 5F 74 77 6F 00 08 5F 6D-65 6E 75 5F 75 70 00 10 .._get_probe3_name
000170 5F 67 65 74 5F 70 72 6F-62 65 33 5F 6E 61 6D 65 .._get_probe4_na
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000190 6D 65 00 0B 5F 62 6C 69-6E 6B 5F 69 74 65 6D 00 .._draw_menu_item
0001A0 0F 5F 64 72 61 77 5F 6D-63 6E 75 5F 69 74 65 67 .._menu_down..._o
0001B0 00 0A 5F 6D 65 6E 75 5F-64 6F 77 6E 00 10 5F 67 ..et_standard_grid
0001C0 65 74 5F 73 74 61 6E 64-61 72 64 5F 67 72 69 64 .._structure.._men
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000250 6C 5F 61 6C 75 00 09 5F-67 72 61 70 68 69 6E 74 .._ll_bas_fb.._p
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000290 67 72 61 70 68 77 69 6E-00 0A 5F 6C 6C 5F 77 69 n_fb.._message_a
0002A0 6E 5F 66 62 00 0D 5F 6D-65 73 73 61 67 65 5F 61 re..._get_experi
0002B0 72 65 61 00 13 5F 67 65-74 5F 65 78 70 65 72 69 ment_key.....dr
0002C0 6D 65 6E 74 5F 68 65 79-00 EE B4 0F 00 0C 64 72 aw_ellipse.6.F..
0002D0 61 77 5F 65 6C 6C 69 70-73 65 00 36 BC 46 00 08

MODULE 1

(C) 1989 Biovision

APPENDIX A

EP 0 401 077 A2

```

0002E0 5F 6C 6C 5F 6D 6F 64 65-00 0A 5F 69 6D 5F 6F 70
0002F0 6D 6F 64 65 00 12 5F 63-6C 65 61 72 5F 61 63 74
000300 69 6F 6E 5F 61 72 65 61-00 07 5F 6C 6C 5F 62 75
000310 73 00 10 5F 63 6C 65 61-72 5F 6D 65 6E 75 5F 61
000320 72 65 61 00 13 B4 17 00-14 62 75 69 6C 64 5F 69
000330 6D 61 67 65 5F 66 69 6C-65 6E 61 6D 65 00 0F 6C
000340 A6 00 13 5F 63 6C 65 61-72 5F 6D 65 73 73 61 67
000350 65 5F 61 72 65 61 00 0C-5F 69 6D 5F 66 72 6F 6D
000360 64 69 73 6B 00 14 5F 77-72 69 74 65 5F 61 6C 6C
000370 5F 73 74 61 6E 64 61 72-64 73 00 08 5F 66 6C 69
000380 63 6B 65 72 00 00 5F 6B-6B 5F 64 67 73 65 6F 72
000390 6D 61 74 00 0C 5F 6C 6C-5F 74 6B 5F 66 69 65 6C
0003A0 64 00 0B 5F 69 6D 5F 6F-75 74 70 61 74 68 00 07
0003B0 5F 6D 6F 75 73 65 72 00-08 5F 69 6D 5F 73 79 6E
0003C0 63 00 09 5F 69 6D 5F 76-69 64 65 6F 00 06 5F 6F
0003D0 76 6C 75 74 00 07 5F 64-65 6E 39 36 77 00 07 5F
0003E0 65 72 72 6D 73 67 00 62-80 16 00 10 5F 61 63 71
0003F0 39 36 67 6F 5F 65 6C 6C-69 70 73 65 00 61 0C 01
000400 90 8C DC 00 12 5F 67 65-74 5F 70 69 63 5F 64 69
000410 72 65 63 74 6F 72 79 00-05 5F 65 78 69 74 00 0F
000420 5F 73 65 74 5F 6D 65 6E-75 5F 74 69 74 6C 65 00
000430 06 5F 6B 5F 65 78 70 00-13 5F 67 65 74 5F 63 61
000440 6D 59 6E 69 74 5F 76 61-6C 75 65 73 00 0C 5F 69
000450 6D 5F 73 65 74 63 6F 6C-6F 72 00 15 5F 63 6C 6F
000460 73 65 5F 73 74 61 6E 64-61 72 64 73 5F 66 69 6C
000470 65 00 0D 5F 69 6D 5F 64-72 61 77 6D 6F 64 65 00
000480 07 5F 76 5F 70 6C 73 74-00 08 5F 69 6D 5F 6D 6F
000490 76 65 00 13 5F 70 75 74-5F 63 61 6D 69 6E 69 74
0004A0 5F 76 61 6C 75 65 73 00-0E 5F 67 65 74 5F 73 74
0004B0 61 6E 64 61 72 64 73 00-0B 5F 69 6D 5F 65 6C 6C
0004C0 69 70 73 65 00 0C 5F 73-65 74 5F 6D 65 73 73 61
0004D0 67 65 00 0A 5F 69 6D 5F-6F 66 66 73 65 74 00 D4
0004E0 B0 13 00 0D 5F 61 63 71-39 36 67 6F 5F 67 72 69
0004F0 64 00 61 0C 01 E4 8C 0E-01 08 5F 69 6D 5F 67 61
000500 69 6E 00 0D 5F 53 65 74-43 75 72 73 6F 72 50 6F
000510 73 00 11 5F 73 65 74 5F-73 63 72 65 65 6E 5F 74
000520 69 74 6C 65 00 0B 5F 77-72 69 74 65 5F 67 72 69
000530 64 00 0C 5F 69 6D 5F 73-6F 66 74 69 6E 69 74 00
000540 1B 5F 73 68 6F 77 5F 73-74 61 6E 64 61 72 64 5F
000550 6D 65 6E 75 5F 61 63 74-69 6F 6E 73 00 06 5F 62
000560 64 72 5F 30 00 0F 5F 63-6C 6F 73 65 5F 64 61 74
000570 61 62 61 73 65 00 05 5F-6D 6F 76 65 00 1C 5F 75
000580 70 64 61 74 65 5F 6D 6F-75 73 65 5F 62 75 74 74
000590 6F 6E 5F 64 69 73 70 6C-61 79 00 1C 5F 77 61 69
0005A0 74 5F 66 6F 72 5F 6D 6F-75 73 65 5F 62 75 74 74
0005B0 6F 6E 5F 70 72 65 73 73-00 1E 5F 77 61 69 74 5F

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EP 0 401 077 A2

0005C0	66 6F 72 5F 6D 6F 75 73-65 5F 62 75 74 74 6F 6E
0005D0	5F 72 65 6C 65 61 73 65-00 08 5F 69 6D 5F 77 6C
0005E0	75 74 00 08 5F 69 6D 5F-6D 61 73 6B 00 0B 5F 62
0005F0	75 69 6C 64 5F 6B 65 79-73 00 0A 5F 69 6D 5F 63
000600	73 74 61 72 74 00 A4 B4-0C 00 09 64 72 61 77 5F
000610	67 72 69 64 00 84 BC 3C-00 09 5F 69 6D 5F 63 67
000620	72 61 62 00 0E 5F 6F 70-65 6E 5F 64 61 74 61 62
000630	61 73 65 00 09 5F 69 6D-5F 69 6E 6D 61 70 00 13
000640	5F 61 63 71 75 69 72 65-5F 69 6E 74 65 67 72 61
000650	74 65 64 00 55 B4 1F 00-10 61 63 71 39 36 67 6F
000660	5F 60 76 70 5F 69 6E 69-74 00 0A 61 6C 74 65 72
000670	5F 67 72 69 64 00 B7 BC-0D 00 0A 5F 69 6D 5F 74
000680	6F 64 69 73 6B 00 3B B4-21 00 0D 61 63 71 5F 66
000690	69 72 73 74 5F 39 36 77-00 0F 61 64 6A 75 73 74
0006A0	5F 67 72 69 64 5F 39 36-77 00 39 90 18 00 01 02
0006B0	11 5F 61 63 71 39 36 67-6F 5F 69 74 65 6D 6C 69
0006C0	73 74 62 01 00 3E B6 2E-00 00 01 11 61 63 71 5F
0006D0	61 6E 64 5F 61 6C 69 67-6E 5F 35 36 77 7A 05 00
0006E0	12 64 65 66 69 6E 65 5F-65 6C 6C 67 70 73 65 5F
0006F0	39 36 77 BC 0E 00 3B 90-14 00 01 02 0D 5F 61 63
000700	71 39 36 67 6F 5F 6D 65-6E 75 DA 01 00 84 90 0F
000710	00 00 01 08 5F 61 63 71-39 36 67 6F 00 00 00 7F
000720	B6 BB 00 00 01 09 78 5F-61 63 71 39 36 67 6F 32
000730	00 00 0C 64 72 61 77 5F-65 6C 6C 69 70 73 65 46
000740	12 00 14 62 75 69 6C 64-5F 69 6D 61 67 65 5F 66
000750	69 6C 65 6E 61 6D 65 FA-08 00 09 64 72 61 77 5F
000760	67 72 69 64 16 15 00 10-61 63 71 39 36 67 6F 5F
000770	6D 76 70 5F 69 6E 69 74-44 12 00 0A 61 6C 74 65
000780	72 5F 67 72 69 64 D4 14-00 0D 61 63 71 5F 66 69
000790	72 73 74 5F 39 36 77 1C-07 00 0F 61 64 6A 75 73
0007A0	74 5F 67 72 69 64 5F 39-36 77 8E 0C 00 01 88 04
0007B0	00 00 A2 01 D1 A0 44 01-02 00 00 61 63 71 69 6D
0007C0	67 00 00 70 69 00 00 41-75 74 6F 6D 61 74 69 63
0007D0	20 61 63 71 75 69 73 69-74 69 6F 6E 20 73 65 71
0007E0	75 65 6E 63 65 00 41 64-6A 75 73 74 20 67 72 69
0007F0	64 20 6C 6F 63 61 74 69-6F 6E 20 61 6E 64 20 73
000800	69 7A 65 00 53 75 72 72-6F 75 6E 64 20 6C 61 72
000810	67 65 73 74 20 63 6F 6C-6F 6E 79 20 69 6E 20 67
000820	72 69 64 20 63 65 6C 6C-20 0A 28 49 6E 73 63 72
000830	69 62 65 64 20 65 6C 6C-69 70 73 65 20 69 73 20
000840	74 68 65 20 64 65 66 61-75 6C 74 29 00 41 6C 74
000850	65 72 6E 61 74 65 20 42-65 74 77 65 65 6E 20 49
000860	6D 61 67 65 73 20 56 69-65 77 65 64 00 41 63 71
000870	75 69 73 69 74 69 6F 6E-20 63 6F 6D 70 6C 65 74
000880	65 2C 0A 53 65 6C 65 63-74 20 74 6F 20 63 6F 6E
000890	74 69 6E 75 65 20 61 6E-61 6C 79 73 69 73 00 41

for_mouse_button
 _release..._im_wl
 ut..._im_mask..._b
 uild_keys..._im_c
 start.....draw_
 grid...<..._im_cg
 rab..._open_datab
 ase..._im_inmap..
 _acquire_integra
 ted.U....aco96go
 _mvo_init..alter
 _grid....._im_t
 odisk...!...aco_f
 inst_96w..adjust
 _grid_96w.9....
 .aco96go_itemli
 stb...>....aco_
 and_align_96w..
 .define_ellipse_
 96w...8...._ac
 o96go_menu.....
_aco96go...
x_aco96go2
 ...draw_ellipseF
 ...build_image_f
 ilename....draw_
 grid....aco96go_
 mvp_init....alte
 r_grid....aco_fi
 rst_96w....adjus
 t_grid_96w.....
D....acqim
 o..pi..Automatic
 acquisition seq
 uence.Adjust gri
 d location and s
 ize.Surround lar
 gest colony in g
 rid cell.(Inscr
 ibed ellipse is
 the default).Alt
 ernate Between I
 mages Viewed.Acq
 uisition complet
 e..Select to con
 tinue analysis.A

EP 0 401 077 A2

0008A0	63	71	75	69	72	65	20	20-20	20	20	20	20	20	20	20	20	20	20	20	cquire
0008B0	69	6D	61	67	65	00	41	63-71	75	69	72	65	20	20	20	20	20	20	20	image.Acquire
0008C0	20	20	20	20	20	20	20	69-6D	61	67	65	00	41	63	71					image.Acq
0008D0	75	69	72	65	20	20	20	20-20	20	20	20	20	20	20	69	6D				im
0008E0	61	67	65	00	41	63	71	75-69	72	65	20	20	20	20	20	20	20	20	20	age.Acquire
0008F0	20	20	20	20	20	69	6D	61-67	65	00	8E	A0	B9	03	02					image.....
000900	38	02	42	69	6F	6C	6F	67-69	63	61	6C	20	56	69	73					8.Biological Vis
000910	69	6F	6E	20	20	2D	20	20-49	6D	61	67	65	20	41	63					ion - Image Ac
000920	71	75	69	73	69	74	69	6F-6E	00	49	6D	61	67	65	20					quisition.Image
000930	41	63	71	73	69	73	69	74-69	6F	6E	20	4D	65	6E	75					Acquisition Menu
000940	60	43	6F	75	6C	54	20	6E-6F	74	20	6F	70	65	6E	20					.Could not open
000950	74	68	65	20	64	61	74	61-62	61	73	65	20	66	69	6C					the database fil
000960	65	2E	00	43	6F	75	6C	64-20	6E	6F	74	20	68	69	6E					..Could not fin
000970	64	20	65	78	70	65	72	69-6D	65	6E	74	20	72	65	63					d experiment rec
000980	6F	72	64	20	69	6E	20	64-61	74	61	62	61	73	65	20					ord in database
000990	66	6F	72	20	68	65	79	20-25	6C	64	2E	00	43	6F	75					for key %Id..Cou
0009A0	6C	64	20	6E	6F	74	20	6F-70	65	6E	20	74	68	65	20					ld not open the
0009B0	73	74	61	6E	64	61	72	64-73	20	66	69	6C	65	20	66					standards file f
0009C0	6F	72	20	6B	65	79	20	25-6C	64	2E	00	00	41	63	71					or key %Id...Aca
0009D0	75	69	72	65	20	00	20	69-6D	61	67	65	00	41	43	51					uire . image.ACQ
0009E0	55	49	53	49	54	49	4F	4E-20	2D	20	39	36	2D	57	45					VISITION - 96-WE
0009F0	4C	4C	00	41	43	51	55	49-53	49	54	49	4F	4E	20	2D					LL.ACQUISITION -
000AA0	20	39	36	2D	57	45	4C	4C-00	41	6C	69	67	6E	20	25					96-WELL.Align %
000A10	73	20	69	6D	61	67	65	20-77	69	74	68	20	67	72	69					s image with gri
000A20	64	2D	20	70	72	65	73	73-20	6D	6F	75	73	65	20	62					d, press mouse b
000A30	75	74	74	6F	6E	20	77	68-65	6E	20	64	6F	6E	65	2E					utton when done.
000A40	00	54	68	65	20	67	61	69-6E	20	61	6E	64	20	6F	66					.The gain and of
000A50	66	73	65	74	20	76	61	6C-75	65	20	66	6F	72	20	69					fset value for i
000A60	5D	61	67	65	20	25	73	20-61	72	65	20	25	33	64	20				mage %s are %3d	
000A70	61	6E	64	20	25	33	64	2E-00	53	61	76	69	6E	67	20				and %3d..Saving	
000A80	61	63	71	75	69	72	65	64-20	69	6D	61	67	65	20	74				acquired image t	
000A90	6F	20	64	69	73	6B	20	3A-20	25	73	00	25	73	25	73				o disk : %s.%s%	
000AA0	25	73	2E	25	73	25	73	25-64	00	25	73	25	73	25	64				%s.%s%sd.%e%e%d	
000AB0	25	73	2E	25	73	25	73	00-41	6C	69	67	6E	20	25	73				%s.%s%e.Align %s	
000AC0	20	69	6D	61	67	65	20	75-6E	64	65	72	20	63	61	6D				image under cam	
000AD0	65	72	61	2C	20	6D	69	6E-69	6D	69	7A	69	6E	67	20				era, minimizing	
000AE0	74	68	65	20	66	65	61	74-75	72	65	73	20	6F	66	20				the features of	
000AF0	74	68	65	00	64	69	66	66-65	72	65	6E	63	65	20	69				the difference i	
000B00	6D	61	67	65	2E	20	20	50-72	65	73	73	20	6D	6F	75				mage. Press mou	
000B10	73	65	20	62	75	74	74	6F-6E	20	77	68	65	6E	20	64				se button when d	
000B20	6F	6E	65	2E	00	50	72	65-73	73	20	61	6E	79	20	62				one..Press any b	
000B30	75	74	74	6F	6E	20	74	6F-20	00	61	63	63	65	70	74				utton to .accept	
000B40	20	69	6D	61	67	65	20	61-6C	69	67	6E	6D	65	6E	74				image alignment	
000B50	2E	00	54	68	65	20	67	61-69	6E	20	61	6E	64	20	6F				..The gain and o	
000B60	66	66	73	65	74	20	76	61-6C	75	65	20	66	6F	72	20				ffset value for	
000B70	69	6D	61	67	65	20	25	73-20	61	72	65	20	25	33	64				image %s are %3d	

EP 0 401 077 A2

000B80	20 61 6E 64 20 25 33 64-2E 00 53 61 76 64-6E 67	and %3d.. Saving acquired image to disk : %s.Adj
000B90	20 61 63 71 75 69 72 65-64 20 69 6D 61 67 65 20	ust grid position
000BA0	74 6F 20 64 69 73 6B 20-3A 20 25 73 00 41 64 6A	n and dimensions
000BB0	75 73 74 20 67 72 69 64-20 70 6F 73 69 74 69 6F	using the mouse
000BC0	6E 20 61 6E 64 20 64 69-6D 65 6E 73 69 6F 6E 73	..Move mouse to
000BD0	20 75 73 69 6E 67 20 74-68 65 20 6D 6F 75 73 65	move grid..Hold
000BE0	2E 00 4D 6F 76 65 20 6D-6F 75 73 65 20 74 6F 20	down left button
000BF0	6D 6F 76 65 20 67 72 69-64 2E 00 48 6F 60 64 20	to change grid
000C00	64 6F 77 6E 20 6C 65 66-74 20 62 75 74 74 6F 6E	dimensions..(moves lower right corner).Press rig
000C10	20 74 6F 00 63 68 61 6E-67 65 20 67 72 69 64 20	ht button to return to the menu.
000C20	64 69 6D 65 6E 71 69 6F-6E 73 2E 00 22 6D 6F 76	.Adjust position
000C30	65 73 20 6C 6F 71 65 72-20 72 69 67 68 74 20 63	and dimensions
000C40	6F 72 6E 65 72 27 00 50-72 65 73 73 20 72 69 67	at the elliptical region using the mouse.....e.
000C50	66 74 20 62 75 74 74 6F-6E 20 74 6F 00 72 65 74	.Move mouse to move region..Hold
000C60	75 72 6E 20 74 6F 20 74-68 65 20 6D 65 6E 75 2E	down left button
000C70	00 41 64 6A 75 73 74 20-70 6F 73 69 74 69 6F 6E	to change dimensions of area of interest..Pres
000C80	20 61 6E 64 20 64 69 6D-65 6E 73 69 6F 6E 73 20	s right button to return to the menu.....@.d.2
000C90	6F 66 20 74 6B 62 20 65-6C 6C 69 70 74 69 63 61	.....D.....H
000CA0	6C 20 72 65 67 69 6F 6E-20 75 73 69 6E 67 20 74	....3.....
000CB0	68 65 20 6D 6F 75 73 44-40 8C 00 02 ED 05 65 2E&.....&.+
000CC0	00 4D 6F 70 65 20 6D 6F-75 73 65 20 74 6F 20 6D	.....&.....&.1....
000CD0	6F 76 65 20 72 65 67 69-6F 6E 2E 00 48 6F 6C 64&.....&..
000CE0	20 64 6F 77 6E 20 6C 65-66 74 20 62 75 74 74 6F&.....&....
000CF0	6E 20 74 6F 00 63 6B 61-6E 67 65 20 64 69 6D 65&.....&....
000D00	6E 73 69 6F 6E 73 20 6F-66 00 61 72 65 61 20 6F&.....&....
000D10	66 20 69 6E 74 65 72 65-73 74 2E 00 50 72 65 73&.....&....
000D20	73 20 72 69 67 68 74 20-62 75 74 6F 6E 20 74&.....&....
000D30	6F 00 72 65 74 75 72 6E-20 74 6F 20 74 68 65 20&.....&....
000D40	6D 65 6E 75 2E 00 C9 A0-07 00 02 40 01 64 00 32&.....&....
000D50	80 A0 07 00 02 44 01 96-B4 C8 00 A0 AE 00 02 48&.....&....
000D60	01 CC 00 33 00 00 00 00-00 07 00 00 00 00 08 00 00&.....&....
000D70	00 0B 00 00 00 01 00 00-00 00 00 00 00 00 03 00 02&.....&....
000D80	00 26 00 0C 00 00 00 00 09-00 04 00 01 00 26 00 2B&.....&....
000D90	00 00 00 0B 00 04 00 00 02-00 26 00 49 00 00 00 0E&.....&....
000DA0	00 04 00 01 00 25 00 92-00 00 00 10 00 04 00 02&.....&....
000DB0	00 26 00 B2 00 00 00 00 03-00 04 00 01 00 26 00 E4&.....&....
000DC0	00 00 00 04 00 04 00 01-00 26 00 FB 00 00 00 05&.....&....
000DD0	00 04 00 01 00 26 00 12-01 00 00 06 00 04 00 01&.....&....
000DE0	00 26 00 29 01 00 00 00-00 00 00 00 00 00 00 02&.....&....
000DF0	00 00 00 02 00 03 00 12-00 2D 00 00 00 00 00 00&.....&....
000E00	00 01 00 00 00 00 00 62-01 00 00 FA 9C 2F 00 CC&.....&....
000E10	A6 9D CC 9A 56 4F CC 82-9D CC 76 9D CC 6A 9D CC&.....&....
000E20	5E 9D CC 52 9D CC 46 9D-CC 3A 9D CC 2E 9D CC 22&.....&....
000E30	9D CC 10 9D CC 0C 9D CC-08 9D CC 04 9D BC A2 0B&.....&....
000E40	00 02 F2 01 23 00 00 00-02 00 00 39 A0 44 00 02	.....#.....9.D..
000E50	76 06 43 6F 70 79 72 69-67 68 74 20 2B 63 29 20	v.Copyright (c)

EP 0 401 077 A2

000E60	31 39 38 39 2C 20 42 69-6F 6C 6F 67 69 63 61 6C	1989, Biological
000E70	20 56 69 73 69 6F 6E 20-49 6E 63 2E 20 20 41 6C	Vision Inc. Al
000E80	6C 20 72 69 67 68 74 73-20 72 65 73 65 72 76 65	l rights reserve
000E90	64 00 4B A0 36 00 01 00-00 C8 00 00 00 1E BB 00	d.K.6.....
000EA0	00 8E DB 8B 46 06 A3 5E-01 BB 46 08 A3 60 01 BB	....F...^F...^
000EB0	46 0A 0B 46 0C 74 0D 8B-46 0A BB 56 0C A3 4C 01	F..F.t..F..V..L.
000EC0	B9 16 4E 01 0E E8 00 00-1F C9 CB 67 9C 14 00 84	..N.....9....
000ED0	2D 56 15 C4 29 9D C4 25-9D C4 14 9D C4 0E 9D C8	-V...)..%.....
000EE0	06 9D D5 A0 0A 00 03 00-00 00 00 00 00 00 00 53	.....S.....S
000EF0	9C 0D 00 CB 04 56 48 C8-02 56 38 C8 00 56 36 41	....VH..VB..V6A
000F00	A0 B6 03 01 32 00 C8 FE-00 00 57 5e 1E BB 00 00	....Z....WV....
000F10	BE DB 1E 68 38 02 9A 00-00 00 00 83 D4 04 1E 68	...h8.....h
000F20	60 02 9A 00 00 00 83-C4 04 9A 00 00 00 00 00 9A 00	.....
000F30	00 00 00 00 9A 00 00 00-00 9A 00 00 00 00 00 9A 00	.....
000F40	00 00 00 89 46 F0 89 56-F2 0B D2 7F 0F 7D 05 3D	....F..V....i.=
000F50	01 00 73 08 2B 00 89 46-F2 89 46 F0 94 00 00 00	..s.+..F..F....
000F60	00 9A 00 00 00 00 89 46-F0 89 56 F2 0B D2 7F 0F	.....F..V....
000F70	7D 05 3D 01 00 73 08 2B-00 89 46 F2 89 46 F0 9A	i.=..s.+..F..F..
000F80	00 00 00 00 0B 00 75 1B-9A 00 00 00 00 00 1E 68 77	.....u.....hw
000F90	02 9A 00 00 00 00 83 C4-04 6A 00 9A 00 00 00 00	.....j.....
000FA0	83 C4 02 BE 06 00 00 8B-46 F0 BB 56 F2 26 A3 04	.....F..V..&..
000FB0	00 26 89 16 06 00 6A 05-6A 05 BB 00 00 BA 00 00	.&....j..j.....
000FC0	52 50 9A 00 00 00 00 83-C4 0B 0B 00 75 21 9A 00	RF.....u!..
000FD0	00 00 00 FF 76 F2 FF 76-F0 1E 68 99 02 9A 00 00	....v...v..h....
000FE0	00 00 83 C4 06 6A 00 9A-00 00 00 00 00 83 C4 02 FF	....j.....
000FF0	76 F2 FF 76 F0 9A 00 00-00 00 83 C4 04 89 46 F6	v...v.....F.
001000	B9 56 F8 0B D0 75 21 9A-00 00 00 00 FF 76 F2 FF	.v...u!.....v..
001010	76 F0 1E 68 D3 02 9A 00-00 00 00 83 C4 08 6A 00	v..h.....j..
001020	9A 00 00 00 00 83 C4 02-BB 0A 00 BA 00 00 52 50	.....
001030	B8 08 00 52 50 B8 06 00-52 50 B8 04 00 52 50 B8	...RP...RP...RP.
001040	0A 00 BA 00 00 52 50 B8-0B 00 52 50 B8 06 00 52	....RP...RP...R
001050	50 B8 04 00 52 50 B8 02-00 52 50 B8 00 00 52 50	P...RP...RP...RF
001060	9A 00 00 00 00 83 C4 2B-9A 00 00 00 00 89 86 16	.....t.....
001070	FF 89 96 18 FF 9A 00 00-00 00 89 86 1A FF 89 96	.....
001080	1C FF 9A 00 00 00 00 89-86 1E FF 89 96 20 FF 9A	.....
001090	00 00 00 00 89 86 22 FF-89 96 24 FF 1E 68 4A 01	....."....\$..hJ.
0010A0	1E 68 48 01 9A 00 00 00-00 83 C4 08 9A 00 00 00	.hH.....
0010B0	00 83 3E 48 01 00 75 13-83 3E 4A 01 00 75 0C C7	..>H..u..>J..u..
0010C0	06 48 01 CC 00 C7 06 4A-01 33 00 FF 36 4A 01 9A	.H.....J..3..6J..
0010D0	00 00 00 00 83 C4 02 FF-36 48 01 9A 00 00 00 00	.....6H.....
0010E0	83 C4 02 2B F6 8D 86 16-FF 89 86 12 FF 8C 96 14	...+.....
0010F0	FF C4 9E 12 FF 26 C4 1F-B9 01 00 56 BF 02 03 8B	....&....V....
001100	F3 1E 1E 06 1F 07 D1 E9-1B CO 3B C9 F3 A7 75 04	.....;....u..
001110	2B C8 F3 A6 1F 5E 74 03-E9 5D 02 89 76 FC C7 46	+....^t..]..v..F
001120	F4 00 00 0B F6 7F 03 E9-D1 00 8D 86 28 FF 89 86	.....
001130	12 FF 8C 96 14 FF 8D 66-16 FF 89 86 0E FF BC 96	.....

EP 0401077 A2

001140	10 FF BE A6 01 BB 7E FC-BB C7 01 46 F4 B9-J9 00	.....~....F....
001150	56 57 BE 03 03 C4 BE 12-FF D1 E9 F2 A5 13 C9 F2	VW.....
001160	A4 5F 5E C4 9E 0E FF 26-BB 07 26 BB 57 02 BB D8	..^...&..&W..
001170	B9 9E 06 FF B9 96 08 FF-57 56 C4 BE 06 FF 1E C5	.....WV....
001180	B6 12 FF B9 FF FF 33 C0-F2 AE F7 D1 2B F9 BB D9	.....3....+..
001190	87 FE BC DA 06 BE C2 1F-B9 FF FF F2 AE 4F BB CB	.....O..
0011A0	D1 E9 F2 A5 13 C9 F2 A4-1F 5E 5F 57 56 BF OC 03	.....WV....
0011B0	BC D8 8E CO 1E C5 B6 12-FF B9 FF FF 33 C0 F2 AE	.....3...
0011C0	F7 D1 2B F9 BB D9 87 FE-06 BE C2 1F B9 FF FF F2	..+.....
0011D0	AE 4F BB CB D1 E9 F2 A5-13 C9 F2 A4 1F 5E SF BB	.9.....^..
0011E0	B6 12 FF 87 04 B9 54 02-B3 B6 12 FF 32 93 8e 0E	.....T....Z..
0011F0	FF 04 83 C6 0C 4E 74 03-E9 52 FF 8B A6 FC B9 4e	....0t..R..F..F
001200	F4 3D 04 00 7D 7B BB D0-D1 E0 03 C2 D1 E0 D1 E0	.=.34.....
001210	B9 86 02 FF BB F0 81 C6-9E 01 BB F8 B1 C7 A0 01	.....
001220	05 A2 01 B9 86 0C FF BB-86 02 FF 05 A4 01 B9 84	.....
001230	0E FF BB B6 02 FF 05 A6-01 B9 B6 12 FF B8 04 00	.....
001240	2B C2 BB C8 01 4E F4 C7-04 00 00 C7 05 00 00 BB	+...N.....
001250	9E 0C FF C7 07 00 00 BB-9E 0E FF C7 07 00 00 BB	.....
001260	9E 12 FF 2B D0 B9 47 02-89 07 B3 C6 0C B3 C7 0D	...+..G.....
001270	B3 86 0C FF 0C B3 B6 0E-FF 0C B3 B6 12 FF 0C E2	..F.....+F...n
001280	C6 C7 46 F4 05 00 BB 04-00 2B 46 FC BB FB BE 6E)<.....
001290	01 B9 04 00 29 3C B3 C6-0C E2 F9 0E E8 00 00 B3	2^..uZ.^..1....
0012A0	3E 5E 01 00 75 5A B3 7E-FC 01 7C 0F FF B6 15 FF	.....=....Va
0012B0	FF B6 15 FF 0E E8 00 00-3D 9C 0F 01 B7 B0 56 61	.....V^....1..&
0012C0	C7 9B 9D 87 97 56 5E C7-89 9D C7 31 9D C7 26 9D	.....M..
0012D0	C7 1B 9D C7 18 9D C7 12-9D C6 A6 9D C6 4D 9D C6	=....VI....VG
0012E0	3D 9D C5 F7 9D CD D6 56-49 C5 D5 9D CD CA 56 47	.....
0012F0	C5 C7 9D C5 C1 9D C5 BB-9D C5 B4 9D C5 AD 9D CD	.VP..V=.....V
001300	A7 56 50 CD 9F 56 3D C5-9C 9D C5 98 9D CD 2A 56	..3V..pV..EV..IV
001310	0D CD 7D 56 0C CD 70 56-09 CD 63 56 05 CD 5B 56	..VVH.QVH.LVH.GV
001320	11 C5 56 56 48 C5 51 56-48 C5 4C 56 48 C5 47 56	H.BVH.=VH.:VH.5V
001330	48 C5 42 56 48 C9 3D 56-48 C5 3A 56 48 C5 35 56	8.OVB.+VB.&VB.#V
001340	38 C5 30 56 38 C5 2B 56-38 C9 26 56 38 C5 23 56	8..V:..V7....V.
001350	38 CD 1B 56 3A CD 11 56-37 C5 0E 9D CD 02 56 14	..VD..V:..V7....
001360	CC FO 56 44 CC E2 56 3A-CC D8 56 37 C4 D5 9D CC	.V...V...V<..V<.
001370	C9 56 14 CC BD 56 1B C8-BB 56 3C C4 B5 56 3C C4	.V6..V6.....V:..
001380	AE 56 36 C4 A9 56 36 C4-9F 9C CC 96 56 3A CC 8C	V7.....V..zV..VV
001390	56 37 C4 69 9D CC 83 56-14 CC 7A 56 5B CC 5C 56	#.WVW.SV#.4VT./V
0013A0	23 CC 57 56 57 CC 39 56-23 CC 34 56 54 CC 2F 56	+.*V).XV'..V;...
0013B0	2B CC 2A 56 29 CC 25 56-27 CC 1D 56 3B C4 1A 9D	..VK.....
0013C0	CC 11 56 4B C4 0E 9D C8-08 9D BB A0 B5 03 01 E4	.....F....~
0013D0	03 B3 C4 04 0E E8 00 00-C7 46 F4 02 00 83 7E FC	.....
0013E0	02 7C 32 8D B6 1A FF 89-86 06 FF 8C 96 08 FF BB	~..v....&W.&7
0013F0	7E FC 8B 76 F4 C4 9E 06-FF 26 FF 77 02 26 FF 37	V.....F;..
001400	56 0E E8 00 00 B3 C4 06-B3 86 06 FF 04 46 3B F7	~..v....h...h.
001410	7E E3 89 76 F4 0E E8 00-00 1E 68 13 03 1E 68 DA	

EP 0 401 077 A2

001420	01	9A	00	00	00	00	B3	C4-08	9A	00	00	00	00	83	3E>
001430	5E	01	00	75	1E	6A	05	1E-68	DA	01	9A	00	00	00	00	^..u.j..h.....
001440	B3	C4	06	6A	01	6A	05	1E-6B	DA	01	9A	00	00	00	00	...j..j..h.....
001450	B3	C4	08	C7	46	FA	00	00-8B	7E	FC	8B	76	F4	6B	00	....F....~..v.h.
001460	00	68	00	00	1E	68	DA	01-9A	00	00	00	00	83	C4	08	.h...h.....
001470	89	B6	26	FF	9A	00	00	00-00	BB	86	26	FF	2D	01	00	..&.....&-..
001480	3D	08	00	76	03	E9	5F	01-03	CO	93	2E	FF	A7	02	06	=..v.._.....
001490	90	B3	86	12	FF	04	46	83-FE	04	7C	03	E9	95	FD	E9	....F...i.....
0014A0	68	FD	90	83	FF	01	7C	0F-FF	B6	18	FF	FF	B6	16	FF	h.....i.....
0014B0	0E	E8	00	00	B3	C4	04	0E-E8	00	00	BE	02	00	3B	FE	.....
0014C0	7C	29	8D	86	1A	FF	89	86-06	FF	8C	75	08	FF	C4	9E	1).....
0014D0	06	FF	26	FF	77	02	26	FF-37	56	0E	E8	00	00	83	C4	..&.w.&.7V.....
0014E0	06	B3	86	06	FF	04	46	3B-F7	7E	E3	0E	E8	00	00	E9	....F;~.....
0014F0	0F	01	90	0E	E8	00	00	E9-07	01	90	6A	00	6A	00	9A	.....j..j..
001500	60	00	00	00	B3	C4	04	6A-01	0E	E8	00	00	83	C4	02	.....j.....
001510	1E	68	00	00	9A	00	00	00-00	83	C4	04	6A	00	6A	02	h.....j..j..
001520	9A	00	00	00	83	C4	04	6A-6A	14	6A	01	6A	00	6A	01	.....j..j..j..j..
001530	6A	00	6A	02	9A	00	00	00-00	83	C4	0C	6A	01	6A	01	j..j.....j..j..j..
001540	6A	00	9A	00	00	00	00	83-C4	06	6A	01	6A	02	6A	FF	j.....j..j..j..
001550	6A	00	9A	00	00	00	00	83-C4	08	6A	00	6A	01	9A	00	j.....j..j..
001560	6A	00	9A	00	00	00	00	83-C4	08	6A	00	6A	01	9A	00	j.....j..j..
001570	00	00	00	B3	C4	04	6A	01-6A	01	9A	00	00	00	00	83	.....j..j..
001580	C4	04	1E	68	29	03	1E	68-DA	01	9A	00	00	00	00	B3	...h)..h.....
001590	C4	0B	EB	6D	90	83	FF	01-7C	67	FF	B6	18	FF	FF	B6	...m...lg.....
0015A0	16	FF	0E	E8	00	00	83	C4-04	EB	56	B3	FF	02	7C	51	.....V...10
0015B0	FF	B6	1C	FF	FF	B6	1A	FF-6A	02	0E	E8	00	00	83	C4	.....j..
0015C0	06	EB	3E	B3	FF	03	7C	39-FF	B6	20	FF	FF	B6	1E	FF	..>..19..
0015D0	6A	03	EB	E6	90	83	FF	04-7C	27	FF	B6	24	FF	FF	B6	j.....1'..\$..
0015E0	22	FF	6A	04	EB	D4	90	C7-46	FA	01	00	EB	13	90	B6	"..j....F.....
0015F0	04	06	05	FE	04	0E	05	FA-05	A8	05	BE	05	D6	05	EB	.....
001600	05	6A	14	6A	14	9A	00	00-00	00	83	C4	04	83	7E	FA	.j..j.....
001610	00	75	03	E9	48	FE	89	76-F4	8E	06	02	00	26	FF	36	.u..H..v.....&.6.
001620	0A	00	26	FF	36	08	00	26-FF	36	06	00	26	FF	36	04	..&.6..&.6..&.6..
001630	00	8E	06	04	00	26	FF	36-0A	00	26	FF	36	08	00	26	....&.6..&.6..&.
001640	FF	36	06	00	26	FF	36	04-00	26	FF	36	02	00	26	FF	.6..&.6..&.6..&.
001650	36	00	00	9A	00	00	00	00-B3	C4	14	FF	36	4A	01	FF	6.....6J..
001660	36	48	01	9A	00	00	00	00-B3	C4	04	FF	76	F8	FF	76	6H.....v..v
001670	F6	9A	00	00	00	00	83	C4-04	FF	76	F8	FF	76	F6	9A	.....&.6..
001680	00	00	00	00	83	C4	04	BE-06	04	00	26	FF	36	0A	00	.....&.6..
001690	26	FF	36	08	00	26	FF	36-06	00	26	FF	36	04	00	26	&.6..&.6..&.6..&.
0016A0	FF	36	02	00	26	FF	36	00-00	9A	00	00	00	00	83	C4	.6..&.6..
0016B0	0C	B3	3E	60	01	00	75	07-6A	03	6A	01	EB	05	90	6A	..>..u.j..j..j..
0016C0	03	6A	00	9A	00	00	00	00-B3	C4	04	6A	00	6A	00	9A	.....j..j..
0016D0	00	00	00	00	B3	C4	04	6A-01	0E	E8	00	00	83	C4	02	.....j..
0016E0	1E	68	00	00	9A	00	00	00-00	83	C4	04	6A	00	6A	02	.h.....j..j..
0016F0	9A	00	00	00	00	83	C4	04-1E	68	DA	01	9A	00	00	00	.....h..

EP 0 401 077 A2

001700	00 B3 C4 04 1F 5E 5F C9-CB CB 50 00 00 1E B8 00	.....^_...P....
001710	00 8E DB 9A 00 00 00 00-FF 76 08 FF 76 06 1E 68	.....v..v..h
001720	3F 03 BD 46 B0 16 50 9A-00 00 00 00 83 C4 0C 8D	?..F..P.....
001730	46 B0 16 50 6A 00 9A 00-00 00 00 83 C4 06 B8 00	F..Pj.....
001740	04 BA 00 00 52 50 52 50-52 50 68 00 01 6A 00 6A	...RFRPRPh..j.j
001750	00 6A 00 9A 00 00 00 00-83 C4 14 68 FF 00 9A 00	.j.....h...
001760	00 00 00 83 C4 02 6A 00-6A 03 9A 00 00 00 00 83	....j.j.....
001770	C4 04 FF 36 4A 01 9A 00-00 00 00 83 C4 02 FF 36	...6J.....6
001780	48 01 0D 9C 66 01 07 AF-9D CF A6 56 47 07 A3 9D	H...f.....VG...
001790	CF 9A 56 26 CF BE 56 56-CF 83 56 55 CB 71 54 05	..V&..VV..VU..dT.
0017A0	C7 6E 54 05 CF 66 56 46-CF 57 56 08 07 4F 9D CF	.nT..FVF..RV..D..
0017B0	42 56 2E CB 3E 9D CF 2E-56 10 07 29 9D CF 20 56	CV+..>..V..J..V
0017C0	26 CF 14 56 20 07 11 9F-97 04 56 2A CE FF 56 26	&..V.....V..V..V..
0017D0	CE F3 56 51 Ce 82 9D CE-P9 56 4C Ce D6 56 4B Ce	..VQ.....VL..VH..
0017E0	D1 56 48 C6 CC 56 48 C6-07 56 48 Cs.C2 56 48 Ce	.VH..VH..VH..VH..
0017F0	BD 56 48 C6 B8 9C CE AF-56 3F CE A1 56 2D CE 93	.VH.....V..V..V..
001800	56 43 C6 90 9D C6 8C 9D-CE 83 56 1F C6 80 56 48	VC.....V..V..VH..IVH
001810	Ce 7B 56 48 C6 76 56 48-C6 71 56 48 Ce 6C 56 48	.gVH.b..V8..VVB..
001820	C6 67 56 48 C6 62 9C C6-5E 56 38 Ce 59 56 38 C6	TVB..OVS..J..SVJ..
001830	54 56 38 Ce 4F 56 38 C6-44 9C CE 35 56 4A Ce 2E*..(..&..\$..
001840	8E C6 20 8E C6 2A 8E C6-2B 8E Ce 26 8E C6 24 8E	.."......V...V
001850	C6 22 8E C6 20 8E C6 1E-8E 85 EB 56 03 85 D3 56	a..V.....V4..
001860	61 CD BA 56 0B C5 B7 9D-C5 83 9D CD AA 56 34 CD	.VS..VI..VI..rV..
001870	9E 56 33 CD 92 56 31 CD-82 56 31 CD 72 56 2F CD	dV..PV&.DV..A..:
001880	64 56 2E CD 50 56 26 CD-44 56 2C CS 41 9F 85 3A	V..V..Vb..Va..V..V..
001890	56 24 CD 2F 56 26 85 24-56 62 85 1C 56 06 85 0B	T..V.....VT..VT
0018A0	56 03 84 E8 56 62 84 E1-56 61 C4 B9 8E CC A4 56	.CV..x..KV..h...
0018B0	54 CC 98 56 12 C4 95 9D-D4 91 56 54 CB BE 56 54	..YVN..DV..N..J..
0018C0	CC 7B 56 0F C4 78 9D CC-6B 56 0E C4 68 9D C4 5F	FV..ZV..Vbg....
0018D0	9D CC 59 56 4E CC 51 56-0B C4 4E 9D C4 4A 9D 84	....j.....
0018E0	46 56 06 84 32 56 03 84-05 56 62 67 A0 E9 01 01	....j.....
0018F0	95 07 9A 00 00 00 00 B3-C4 02 6A 02 9A 00 00 00	....j.....
001900	00 B3 C4 02 6A FF 9A 00-00 00 00 83 C4 02 9A 00	....j.....
001910	00 00 00 9A 00 00 00 00-6A 00 9A 00 00 00 00 83	....6J..6H..
001920	C4 02 9A 00 00 00 00 FF-36 4A 01 FF 36 48 01 FF	v..v..hw..F..P..
001930	76 08 FF 76 06 1E 68 77-03 8D 46 B0 16 50 9A 00	....F..Pj....
001940	00 00 00 83 C4 10 8D 46-B0 16 50 6A 00 9A 00 00	....j.j.....
001950	00 00 B3 C4 06 6A 00 6A-02 9A 00 00 00 00 83 C4	....RFRPRPh..
001960	04 B8 00 02 BA 00 00 52-50 52 50 52 50 68 00 01	j..j..j.....j..
001970	6A 00 6A 00 6A 00 9A 00-00 00 00 83 C4 14 6A 00	j..j.....j..j..
001980	6A 03 6A 00 9A 00 00 00-00 83 C4 06 6A 00 6A 06	....j..j..j..j..j..
001990	9A 00 00 00 00 83 C4 04-6A 01 6A 02 6A FF 6A 00	....j..j..j..j..j..
0019A0	9A 00 00 00 00 83 C4 08-6A 01 6A 02 6A FF 6A 00	....j..j..j..j..j..
0019B0	9A 00 00 00 00 83 C4 08-83 3E 60 01 00 75 30 B8	....>..u0..
0019C0	00 04 BA 00 00 52 50 52-50 52 50 68 00 01 6A 00	....RFRPRPh..j..
0019D0	6A 00 6A 00 9A 00 00 00-00 83 C4 14 6A 00 6A 01	j..j.....j..j..

EP 0 401 077 A2

0019E0	6A 00 9A 00 00 00 00 83-C4 06 6A 01 EB 03 90 6A	j.....j...j
0019F0	00 6A 00 9A 00 00 00 00-B3 C4 04 6A 01 0E E8 00	.j.....j...
001A00	00 83 C4 02 1E 68 00 00-1E 68 AF 03 1E 68 50 00	....h...h...hP.
001A10	9A 00 00 00 00 83 C4 0C-1E 6B 50 00 6A 01 9A 00	.....hP.j...
001A20	00 00 00 83 C4 06 1E 68-00 00 9A 00 00 00 00 83	.....h.....
001A30	C4 04 6A 00 6A 02 9A 00-00 00 00 83 C4 04 BB 00	..j.j.....
001A40	00 BA 00 00 52 50 9A 00-00 00 00 83 C4 04 9A 00	....RF.....
001A50	00 00 00 1F C9 CB 90 CB-00 00 00 1E BB 00 00 8E	.....
001A60	D8 83 3E 50 01 00 74 31-FF 76 06 FF 36 5A 01 FF	..>\..t1.v..6Z..
001A70	36 58 01 FF 36 56 01 FF-36 54 01 FF 36 52 01 FF	6X..6V..6T..6R..
001A80	36 50 01 FF 36 4E 01 FF-36 4C 01 9A 00 00 00 00	6F..6N..6L.....
001A90	52 50 1E 68 D2 03 EB 2F-90 FF 36 54 01 FF 36 58	RF.h.../..6Z..6X
001AA0	01 FF 36 56 01 FF 36 54-01 FF 36 52 01 FF 36 50	..6V..6T..6R..6P
001AB0	01 FF 76 06 FF 36 4E 01-FF 36 4C 01 9A 00 00 00	..v..6N..6L.....
001AC0	00 52 50 1E 68 E0 03 1E-68 00 00 9A 00 00 00 00	.RF.h...h.....
001AD0	63 C4 1E 1F C9 CB 90 A7-90 E3 00 CD DA 56 08 C5	.....V..
001AE0	D7 9F C5 D3 9D CD CB 56-59 C5 C6 9D C5 C4 9D C5	.....V9.....
001AF0	B0 9D C5 B9 9D C5 B5 9D-C5 B1 9D C5 AD 9D C5 A9	.....V9.....
001B00	9D C5 A2 9D CD 9A 56 59-C5 97 9D C5 93 9D C5 8F	.....C..
001B10	9D C5 8B 9D C5 87 9D C5-83 9D C5 7F 9D C5 7B 9D	.q..k..JVN.DV..F
001B20	C5 71 9D C9 6B 9D CD 5D-56 4E CD 55 56 19 C9 50	V".MV".EV&.9V".6
001B30	56 22 C5 4D 56 22 CD 45-56 26 CD 39 56 60 C5 36	..-VF.(...V....
001B40	9F CD 2D 56 46 C5 28 9F-CD 1F 56 08 C5 1C 9F C5	....V*..V&..V
001B50	18 9D C5 14 9F 85 0D 56-2A CD 02 56 26 CC F1 56	\..VU..T...T....
001B60	5C CC E3 56 55 C8 D1 54-05 C4 CE 54 05 C4 C8 9D	..V1..V1..V3..V4
001B70	CC BF 56 31 CC AF 56 31-CC 9F 56 5D CC 93 56 50	..VU..ST..PT..hV&
001B80	CC 85 56 55 C8 73 54 05-C4 70 54 05 CC 68 56 26	..AVF.MV..E...:..7
001B90	CC 5C 56 46 CC 4D 56 08-C4 45 9D C4 3B 9D C4 37	..IV+.JYZ."VT..V
001BA0	9D CC 31 56 2B CC 29 56-5A CC 22 56 54 CC 1D 56	S..VZ..VX..VI...
001BB0	53 CC 15 56 5A CC 0B 56-58 CC 01 56 49 C5 A0 0A	.....M....
001BC0	00 03 06 00 00 00 00 00-00 00 4D 9C 0D 00 C8 04	V...V...V...`..Z
001BD0	56 04 C8 02 56 07 C8 00-56 0A E2 A0 60 03 01 7A	..Z..WV.....
001BE0	09 C8 5A 00 00 57 56 1E-B8 00 00 8E D8 B8 00 00	...RF.....V.
001BF0	BA 00 00 52 50 9A 00 00-00 00 83 C4 04 FF 76 0A	..v..h..F..P...
001C00	FF 76 08 1E 68 EE 03 BD-46 B0 16 50 9A 00 00 00	.....RP.F..
001C10	00 83 C4 0C BB 00 00 BA-00 00 52 50 BD 46 B0 16	Pj.j.....
001C20	50 6A 01 6A 00 9A 00 00-00 00 83 C4 0C BB 00 00	...RP.h*.j.j...
001C30	BA 00 00 52 50 1E 68 2A-04 6A 01 6A 01 9A 00 00	.....RP...
001C40	00 00 83 C4 0C BB 00 00-BA 00 00 52 50 9A 00 00	.....RP..h
001C50	00 00 83 C4 04 BB 00 00-BA 00 00 52 50 1E 68 5B	.....RP.h
001C60	04 6A 02 6A 01 9A 00 00-00 00 83 C4 0C BB 00 00	..j.j.....
001C70	BA 00 00 52 50 1E 68 70-04 6A 02 6A 02 9A 00 00	...RP.hp.j.j...
001C80	00 00 83 C4 0C 6A 00 6A-02 9A 00 00 00 00 83 C4	....j.j.....
001C90	04 68 00 02 68 00 02 6A-00 6A 00 9A 00 00 00 00	.h..h..j.j.....
001CA0	83 C4 08 6A 00 6A 01 9A-00 00 00 00 83 C4 04 6A	...j.j.....j
001CB0	00 6A 01 9A 00 00 00 00-B3 C4 04 B8 00 03 BA 00	.j.....

EP 0 401 077 A2

001CC0	00 52 50 52 50 52 50 68-00 01 6A 00 6A 00 6A 00	.RPRPRPh..j.j.j.
001CDO	9A 00 00 00 00 83 C4 14-6A 00 9A 00 00 00 00 83	.....j.....
001CEO	C4 02 6A 00 6A 04 6A 04-6A 01 6A 07 9A 00 00 00	..j..j..j..j..j..
001CFO	00 83 C4 0A 6A 03 6A 00-9A 00 00 00 00 83 C4 04	....j..j.....
001D00	6A 00 6A 00 9A 00 00 00-00 83 C4 04 6A 00 9A 00	j..j.....j..j..
001D10	00 00 00 83 C4 02 6A 03-6A 03 6A 02 6A 00 9A 00	....j..j..j..j..
001D20	00 00 00 83 C4 08 2B F6-6A 02 9A 00 00 00 00 83	....+..j.....
001D30	C4 02 8D 46 AB 16 50 8D-46 AC 16 50 8D 46 AE 16	...F..P.F..P.F..
001D40	50 9A 00 00 00 00 83 C4-0C 8B FB AB 02 74 03 BE	P.....t..v..v..
001D50	01 00 0B F6 74 D2 89 7E-A6 89 76 AA FF 76 AB 9A	....t..v..v..v..
001D60	00 00 00 00 83 C4 02 6A-00 6A 02 9A 00 00 00 00	....j..j..j..j..
001D70	83 C4 04 8E 06 06 00 26-BB 1C 00 00 8A 87 40 01	....&.....e..
001D80	2A E4 50 8E 06 08 00 26-BB 1E 00 00 8A 87 40 01	..P.....e.....e..
001D90	50 8E 06 0A 00 26 BB 1E-00 00 BA 87 40 01 50 6A	P.....&.....e..P..
001DA0	01 9A 00 00 00 00 83 C4-08 AB 01 6A 02 6A FF 6A	....j..j..j..j..
001DB0	00 9A 00 00 00 00 83 C4-08 AB 01 6A 02 6A FF 6A	....j..j..j..j..
001DC0	00 9A 00 00 00 00 83 C4-08 BB 00 04 BA 00 00 52	....j..j..j..j..
001DD0	50 52 50 52 50 68 00 01-6A 00 6A 00 6A 00 9A 00	PRPRPRh..j..j..j..
001DE0	00 00 00 83 C4 14 6B FF-00 5A 00 00 00 00 00 83 C4	....h.....
001DF0	02 9A 00 00 00 00 FF 3E-4A 01 FF 3E 4B 01 FF 7E	....&J..6F..V..
001EO0	0A FF 76 08 1E 68 88 04-2D 46 B0 16 50 9A 00 00	..v..h..F..F..
001E10	00 00 83 C4 10 BD 46 B0-16 50 6A 00 7A 00 00 00	....F..Fj..
001E20	00 83 C4 06 6A 00 6A 06-8A 00 00 00 00 00 83 C4 04	....j..j..j..j..
001E30	6A 01 6A 02 6A FF 6A 00-8A 00 00 00 00 00 83 C4 08	j..j..j..j..j..
001E40	6A 01 6A 02 6A FF 6A 00-8A 00 00 00 00 00 83 C4 08	....>..u..
001E50	9A 00 00 00 00 83 3E 60-01 00 75 2F BB 00 04 BA	..RPRPRPh..j..j..
001E60	00 00 52 50 52 50 52 50-6B 00 01 6A 00 6A 00 6A	....j..j..j..j..
001E70	00 9A 00 00 00 00 00 83 C4-14 6A 00 6A 00 6A 00 9A	....j..j..j..j..
001E80	00 00 00 00 83 C4 06 6A-01 EB 02 6A 00 6A 00 9A	....V.....
001E90	00 00 00 00 83 C4 04 FF-76 06 0E EB 00 00 83 C4	..h..h..HP..
001EA0	02 1E 68 00 00 1E 68 C0-04 1E 68 50 00 9A 00 00	....h..j..
001EB0	00 00 83 C4 0C 1E 68 50-00 6A 01 9A 00 00 00 00	....h.....j..
001EC0	83 C4 06 1E 68 00 00 9A-00 00 00 00 00 83 C4 04 6A	.j..
001ED0	00 6A 02 9A 00 00 00 00 00-83 C4 04 9A 00 00 00 00	RP..
001EE0	00 52 50 9A 00 00 00 00-83 C4 04 9A 00 00 00 00	..W.....
001EF0	1F 5E 5F C9 CB C8 0C 00-00 57 56 1E BB 00 00 BE	+.....RP..
001F00	D8 2B FF BB 00 00 BA 00-00 52 50 9A 00 00 00 00	....RP..h..j
001F10	83 C4 04 BB 00 00 BA 00-00 52 50 1E 68 E3 04 6A	..W.....
001F20	01 57 9A 00 00 00 00 83-C4 0C BB 00 00 BA 00 00	RP.....W
001F30	52 50 9A 00 00 00 00 83-C4 04 BB 00 00 AA 9C 77	..ZV..RV..MV..JV
001F40	01 C7 5A 56 17 CF 52 56-19 CB 4D 56 17 C7 4A 56	..BVA.<.6V".3V"
001F50	17 CF 42 56 41 C7 3C 9D-CB 36 56 22 C7 33 56 22	+V..&V"..#V"....
001F60	CF 2B 56 19 CB 26 56 22-C7 23 56 22 CB 1C 9D CF	.VN..V...V"....V".
001F70	OB 56 4E CF 03 56 19 CA-FE 56 22 C6 FB 56 22 CE	.V&..V....VF..
001F80	F3 56 26 CE E7 56 60 C6-E4 9F CE DB 56 46 C6 D6	....V.....
001F90	9F CE CD 56 08 C6 CA 9F-C6 C6 9D C6 C2 9F BB	

EP 0 401 077 A2

001FA0	56	2A	CE	AF	56	26	CE	9F-56	5C	CE	91	56	55	CA	7F	V*..V&..V\..VU.
001FB0	54	05	C6	7C	54	05	C6	76-9D	CE	70	56	54	CE	68	56	T..IT..v..pVT.hV
001FC0	31	CE	58	56	31	CE	48	56-5D	CE	3C	56	46	CE	2D	56	1.XVI.HVJ.<VF.-V
001FD0	08	C6	25	9D	C6	1B	9D	C6-17	9D	CE	11	56	2B	CE	09	..%.....V+..
001FE0	56	56	CD	FE	56	55	C9	EC-54	05	C5	E9	54	05	CD	E1	VV..VU..T...T...
001FF0	56	31	CD	D1	56	31	CD	C1-56	35	C5	BB	9D	C5	B7	56	V1..V1..V5....V
002000	04	C5	B2	9C	C5	AD	9D	C5-A9	56	07	C5	A4	9C	C5	9D	.....V.....
002010	9D	C5	99	56	0A	C5	94	9C-CD	BB	56	26	CD	7F	56	52	...V.....V&VR
002020	CD	61	56	32	CD	4A	56	30-CD	3E	56	28	CD	2E	56	25	.aV2.JV0.>V1..V%
002030	CD	24	56	21	CD	18	56	1E-CD	0C	56	1C	CC	FA	56	1A	.%V!..V...V...V.
002040	CC	F0	56	55	08	DE	54	0E-C4	DB	54	05	CC	D3	56	18	..VU..T...T...V.
002050	CC	C7	56	18	CC	BB	56	1e-CC	99	56	26	CC	9D	56	41	..V...V...V&..VA.
002060	C4	96	9D	08	9D	56	17	C4-8D	56	17	CC	85	56	41	C4	....V...V...V...VA.
002070	7E	9D	C8	78	56	17	C4	75-56	17	CC	6D	56	19	C8	68	~..xV..uV..mV..h
002080	56	17	C4	65	56	17	CC	5D-56	41	C4	56	9D	C8	50	56	V..eV..JVA.V..PV
002090	22	C4	4D	56	22	CC	45	56-41	C8	37	56	22	C4	34	56	"..MV".EVA.7V".4V
0020A0	22	CC	2C	56	08	C4	24	9D-CC	15	56	19	C8	10	56	22	"..V..\$..V..V"
0020B0	C4	0D	56	22	C8	08	9D	49-40	C8	02	01	D6	0E	BA	00	..V"..I.....
0020C0	00	52	50	1E	68	18	05	6A-02	6A	01	9A	00	00	00	00	.RP.h..j..j.....
0020D0	83	C4	0C	BB	00	00	BA	00-00	52	50	1E	68	31	05	6A	.....RF.h1.j
0020E0	02	6A	03	9A	00	00	00	00-83	C4	0C	BB	00	00	BA	00	.j.....
0020F0	00	52	50	1E	68	4A	05	6A-02	6A	04	9A	00	00	00	00	.RP.hJ.j.j.....
002100	83	C4	0C	BB	00	00	BA	00-00	52	50	1E	68	62	05	6A	.....RF.hb.j
002110	02	6A	05	9A	00	00	00	00-83	C4	0C	BB	00	00	BA	00	.j.....
002120	00	52	50	1E	68	7D	05	6A-02	6A	07	9A	00	00	00	00	.RP.h3.j.j.....
002130	83	C4	0C	BB	00	00	BA	00-00	52	50	1E	68	93	05	6A	.....RF.h..j
002140	02	6A	08	9A	00	00	00	00-83	C4	0C	2B	F6	BD	46	F6	.j.....+..F.
002150	16	50	8D	46	FA	16	50	BD-46	FE	16	50	9A	00	00	00	.F.F..F.F..F....
002160	00	83	C4	0C	89	46	F4	FF-76	F6	9A	00	00	00	00	83	....F..V.....
002170	C4	02	F6	46	F6	02	74	06-BE	01	00	E9	A9	00	83	7E	...F..t.....
002180	FE	00	75	09	B3	7E	FA	00-75	03	E9	9A	00	F6	46	F6	..u..~..u....F.
002190	01	74	47	8E	06	04	00	26-A1	04	00	03	46	FE	3D	01	.tG....&....F.=.
0021A0	00	7D	03	BB	01	00	3D	2B-00	7E	03	BB	2B	00	BE	06	.0....=+.~..+...
0021B0	04	00	26	A3	04	00	26	A1-06	00	03	46	FA	3D	01	00	..&...&....F.=..
0021C0	7D	03	BB	01	00	3D	3D	00-7E	03	BB	3C	00	8E	06	04	3....=<.~..<....
0021D0	00	26	A3	06	00	BF	01	00-EB	3A	BE	06	04	00	26	A1	.&....t....&..
0021E0	00	00	03	46	FE	79	02	2B-C0	3D	FF	01	7E	03	BB	FF	...F.y.+.=..~...
0021F0	01	8E	06	04	00	26	A3	00-00	26	A1	02	00	03	46	FA	....&...&....F.
002200	79	02	2B	C0	3D	DF	01	7E-03	BB	DF	01	BE	06	04	00	y.+.=..~....
002210	26	A3	02	00	6A	01	6A	02-BB	00	00	BA	00	00	52	50	&...j..j.....RP
002220	0E	EB	00	00	B3	C4	08	0B-F6	75	03	E9	1F	FF	89	7E	....u.....~
002230	FC	89	76	F8	9A	00	00	00-00	BE	06	02	00	26	C7	06	..v.....&..
002240	00	00	00	00	26	C7	06	02-00	00	00	0B	FF	74	3A	BE	....&.....t..
002250	06	04	00	26	A1	04	00	99-2B	C2	D1	FB	BE	06	02	00&...+....
002260	26	A3	04	00	2E	06	04	00-26	A1	06	00	99	2B	C2	D1&...&...+..
002270	FB	8E	06	02	00	26	A3	06-00	26	A1	04	00	26	A3	08&...&...&..

EP 0401 077 A2

002280	00 26 A1 06 00 26 A3 0A-00 BB 00 00 BA 00 00 52	.&...&.....R
002290	50 9A 00 00 00 00 83 C4-04 9A 00 00 00 00 1F SE	F.....^
0022A0	5F C9 CB 90 C8 18 00 00-57 56 1E BB 00 00 BE DB	-....WV.....
0022B0	C7 46 F2 05 00 BB 00 00-BE 00 00 52 50 9A 00 00	-F.....RP...
0022C0	00 00 83 C4 04 BB 00 00-BE 00 00 52 50 1E 68 A7	.....RF.h.
0022D0	05 6A 01 6A 00 9A 00 00-00 00 83 C4 0C BB 00 00	.J.J.....
0022E0	BA 00 00 52 50 9A 00 00-00 00 83 C4 04 BB 00 00	...RF.....
0022F0	BA 00 00 52 50 1E 68 F0-05 6A 02 6A 01 9A 00 00	...RF.h..J.J...
002300	00 00 B3 C4 0C BB 00 00-BE 00 00 52 50 1E 68 0B	...J.J.....
002310	06 6A 02 6A 03 9A 00 00-00 00 83 C4 0C BB 00 00	...RP.h#..J.J...
002320	BA 00 00 52 50 1E 68 24-06 6A 02 6A 04 9A 00 00	.....RP.h#
002330	00 00 B3 C4 0C BE 00 00-BE 00 00 52 50 1E 68 39	.J.J.....
002340	06 6A 02 6A 05 9A 00 00-00 00 B2 C4 0C BE 00 00	...RP.hK..J.J...
002350	BA 00 00 52 50 1E 68 4B-06 6A 02 6A 07 9A 00 00	.....RP.ha
002360	00 00 B3 C4 0C BB 00 00-BE 00 00 52 50 1E 68 51	.J.J.....
002370	06 6A 02 6A 08 9A 00 00-00 00 83 C4 0C BE 06 04	...J.J.....VH...
002380	00 26 A1 00 00 D4 9C 73-01 C6 C5 56 48 C6 C1 9C	..VA.....V...V..
002390	CE BB 56 41 C6 B1 9D CA-AB 56 17 C6 AB 56 17 CE	..VA.....V...V..
0023A0	A0 56 41 C6 99 9D CA 93-56 17 C6 90 56 17 CE 70 56	VA....XV..XV..BV
0023B0	56 41 C6 81 9D CA 7B 56-17 C6 78 56 17 CE 58 56 41	A.i..CV..IV..XVA
0023C0	41 C6 69 9D CA 63 56 17-C6 60 56 17 CE 40 56 41 C6	Q..KV..HV..XVA
0023D0	C6 51 9D CA 4B 56 17 C6-48 56 17 CE 40 56 41 C6	9..BV..OV..IV..#
0023E0	39 9D CA 53 56 17 C6 30-56 17 CE 28 56 19 CA 23	V.. V.. VA....V
0023F0	56 17 C6 20 56 17 CE 18-56 41 C6 11 9D CA 0B 56	"..V" ..V...V" ..V
002400	22 C6 08 56 22 CE 00 56-19 C9 FB 56 22 C5 FB 56	"..VN..V..V..V"
002410	22 C9 EE 9D CD DC 56 4E-CD D4 56 19 C9 CF 56 22	..V" ..VB..VB..VB
002420	C5 CC 56 22 C5 C9 56 38-C5 C5 56 38 C5 C1 56 38	..VB..VB....VH.
002430	C5 BD 56 38 C5 B9 56 38-C5 B5 9C C5 AC 56 48 C5	...VS....VH...
002440	A8 9D C5 A4 56 38 C5 A0-9D C5 97 56 48 C5 93 9C	..VB..VB..3..WVT.
002450	C5 B9 56 38 C5 82 56 38-C5 7D 9C CD 77 56 54 85	dv_..VH..VH..TVH.
002460	64 56 5F C9 5E 56 48 C5-5B 56 48 C5 54 56 48 C5	F..=VH..9VH..5.. "V
002470	50 9C C5 3D 56 48 C5 39-56 48 C5 35 9C C5 22 56	H....VH....VH.
002480	48 C5 1E 9C C5 15 56 48-C5 11 9C C4 FA 56 48 C4	.VH....VH....V
002490	F6 56 48 C4 F2 9C C4 DB-56 48 C4 D7 9C CC AD 56	R..V2..VA..yV.
0024A0	52 CC 9F 56 32 CC 86 56-41 C4 7F 9D C8 79 56 17	.VV..nVA.g..aV..
0024B0	C4 76 56 17 CC 6E 56 41-C4 67 9D C8 61 56 17 C4	~V..VVVA.D..IV..F
0024C0	5E 56 17 CC 56 56 41 C4 4F-4F 9D C8 49 56 17 C4 46	V..>VA.7..1V...V
0024D0	56 17 CC 3E 56 41 C4 37-9D C8 31 56 17 C4 2E 56	..&VA....V...V.
0024E0	17 CC 26 56 41 C4 1F 9D-C8 19 56 17 C4 16 56 17	..VA....V.....
0024F0	CC 0E 56 41 C4 07 9D C8-01 56 17 F1 A0 0B 03 01	...F.&...F.&...
002500	9D 0F 89 46 F0 26 A1 02-00 89 46 EE 26 A1 04 00	&....F..F.&...&
002510	26 F7 2E 08 00 03 46 F0-89 46 EA 26 A1 06 00 26	....F..F.&...+
002520	F7 2E 0A 00 03 46 EE 89-46 E8 26 A1 04 00 99 2B	....F.&...+
002530	C2 D1 FB 05 05 00 89 46 F8-BE 06 02 00 8B 46 FA 26	....F....F.&
002540	D1 FB 05 05 00 89 46 F8-BE 06 02 00 8B 46 FB 26 39 06	9...~&...F.&?
002550	39 06 08 00 7E 04 26 A3-08 00 8B 46 FB 26 39 06	

EP 0401 077 A2

002560	0A 00 7E 04 26 A3 0A 00-BB 46 F0 26 39 06 00 00	..~.&...F.&9...
002570	7E 1E BB 46 EA 26 39 06-00 00 7D 14 BB 46 EE 26	~..F.&9...}..F.&
002580	39 06 02 00 7E 0A BB 46-E8 26 39 06 02 00 7C 3E	9...~..F.&9...1>
002590	BE 06 04 00 26 A1 04 00-BB C8 D1 EO D1 EO 03 C1&.....
0025A0	BE 06 02 00 26 03 06 04-00 03 46 F0 26 A3 00 00	....&...F.&...
0025B0	BE 06 04 00 26 A1 06 00-BB C8 D1 EO 03 C1 BE 06&.....
0025C0	02 00 26 03 06 06 00 03-46 EE 26 A3 02 00 6A 02	..&...F.&...j.
0025D0	6A 02 9A 00 00 00 00 83-C4 04 68 FF 01 68 FF 01	j.....h..h..
0025E0	6A 00 6A 00 9A 00 00 00-00 83 C4 08 68 FF 00 6A	j.j.....h..j
0025F0	00 6A 00 6A 02 9A 00 00-00 00 83 C4 08 68 FF 00	.j.j.....h..
002600	6A 00 6A 00 6A 03 9A 00-00 00 00 83 C4 08 6A 02	j.j.j.....j.
002610	6A 02 BB 00 00 BA 00 00-52 50 0E E8 00 00 83 C4	j.....RP....
002620	08 2B F6 BB 7E E8 BD 46-F4 16 50 8D 46 FC 16 50	.+...F..P.F..P
002630	BD 46 FE 16 50 9A 00 00-00 00 83 C4 0C 89 46 EC	.F..P.....F..t
002640	FF 76 F4 9A 00 00 00 00-B3 C4 02 F6 46 F4 02 74	.v.....F..t
002650	06 BE 01 00 E9 BF 00 83-7E FE 00 75 09 83 7E FC	.....^..u..~.
002660	00 75 03 E9 B0 00 6A 02-6A 02 B8 00 00 BA 00 00	.u...j.j.....
002670	52 50 0E EB 00 00 83 C4-08 F6 46 F4 01 74 44 BE	RP.....F..td.
002680	06 02 00 26 A1 08 00 2B-46 FE 3D 02 00 7D 03 B8	...&...+F.=..3..
002690	02 00 3B 46 FA 7E 03 BB-46 FA BE 06 02 00 26 A3	;F.^..F.....&.
0026A0	08 00 26 A1 0A 00 2B 46-FC 3D 02 00 7D 03 BB 02	...&...+F.=..3..
0026B0	00 3B 46 FB 7E 03 BB 46-FB BE 06 02 00 26 A3 0A	;F.^..F.....&.
0026C0	00 EB 40 BE 06 02 00 26-A1 00 00 03 46 FE 3B 46	.@...&...F.;F
0026D0	F0 7D 03 BB 46 F0 3B 46-EA 7E 03 BB 46 EA BE 06	.@..F.;F.^..F...
0026E0	02 00 26 A3 00 00 26 A1-02 00 03 46 FC 3B 46 EE	...&...&...F.;F.
0026F0	7D 03 BB 46 EE 3B C7 7E-02 BB C7 BE 06 02 00 26	3..F.;.~.....&
002700	A3 02 00 6A 02 6A 02 B8-00 00 BA 00 00 52 50 0E	...j.j.....RP.
002710	E8 00 00 83 C4 08 0B F6-75 03 E9 09 FF 89 76 F6	.....u.....v.
002720	9A 00 00 00 00 6A 02 6A-02 B8 00 00 BA 00 00 52	....j.j.....R
002730	50 0E EB 00 00 83 C4 08-6A 00 6A 00 6A 00 6A 02	P.....j.j.j.j.
002740	9A 00 00 00 00 83 C4 08-6A 00 6A 00 6A 00 6A 03	.....j.j.j.j.
002750	9A 00 00 00 00 83 C4 08-BE 06 02 00 26 A1 00 00	...>.....&..
002760	2B 46 F0 99 BE 06 04 00-26 F7 3E 04 00 BE 06 02	+F.....&.>....
002770	00 26 89 16 04 00 26 A1-02 00 2B 46 EE 99 BE 06	.&....&...+F...
002780	04 00 26 F7 3E 06 00 B8-06 02 00 26 B9 16 06 00	...&.>.....&...
002790	BB 00 00 BA 00 00 52 50-9A 00 00 00 00 83 C4 04	.....RP.....
0027A0	9A 00 00 00 00 1F 5E 5F-C9 CB 90 C8 00 00 00 1E^_.....
0027B0	BB 00 00 6E D8 FF 76 0C-9A 00 00 00 00 83 C4 02	.....v.....
0027C0	6A 02 9A 00 00 00 00 B3-C4 02 C4 5E 06 26 FF 77	j.....^..&..w
0027D0	02 26 FF 37 9A 00 00 00-00 83 C4 04 C4 5E 06 26	.&.7.....^..&
0027E0	FF 77 0A 26 FF 77 08 9A-00 00 00 00 83 C4 04 C4	.w.&..w.....
0027F0	5E 06 26 BB 47 0A 48 50-26 BB 47 08 48 50 9A 00	^.&G.HP&G.HP..
002800	00 00 00 83 C4 04 1F C9-CB 6F 9C 38 01 CE FD 56	.....o.B..v
002810	45 CE E6 56 45 CE D3 56-42 CE C1 56 40 CE B7 56	E..VE..VB..V@..v
002820	3E CA AF 9D CE 9F 56 4E-CE 97 56 19 CA 92 56 22	>....VN..V...V"
002830	C6 BF 56 22 C6 8C 56 3B-C6 87 9C C6 83 56 48 C6	..V"..VB.....VH.

EP 0 401 077 A2

002840	7E 9C C6 76 56 38 C6 72-56 3B C6 6D 9C C6 69 56	~..VV8.rV8.m..iV
002850	48 C6 64 9C C6 5C 56 38-C6 5B 9C CE 4F 56 35 CE	H.d..VV8.X..DV5.
002860	3F 56 35 86 31 56 24 CA-2B 56 38 C6 28 56 38 CE	?V5.1V\$.+V8.(V8.
002870	1F 56 54 86 0F 56 24 CA-09 56 38 C6 06 56 38 C5	.VT..V\$..V8..V8.
002880	FF 56 38 C5 FB 9C C5 E6-56 38 C5 E2 56 38 C5 DE	.VB....V8..V8..
002890	9C C5 C7 56 38 C5 C3 9C-C5 BD 56 38 C5 B9 9C C5	..V8....V8....
0028A0	A2 56 38 C5 9E 56 38 C5-9A 9C C5 63 56 38 C5 7F	.V8..V8....V8.
0028B0	9C 85 72 56 24 C9 6C 56-38 C5 69 56 38 CD 42 56	..rV\$.1V8.1V8.BV
0028C0	52 CD 34 56 32 85 1A 56-24 C9 14 56 38 C5 11 56	R.4V2..V\$..VB..V
0028D0	38 CD 05 56 35 CC F4 56-35 CC E3 56 20 CC D1 56	S..VS..VS..V ..V
0028E0	1D C4 CA 56 38 C4 C3 56-38 C4 BE 9C C4 B4 56 48	...V8..V8....VH
0028F0	C4 B0 9C C4 AC 56 38 C4-A5 56 38 C4 A0 9C C4 94	.....V8..V8....
002900	56 48 C4 90 9C C4 8A 56-38 C4 B0 56 38 C4 70 56	VH....V8..V8..VV
002910	38 C4 6C 56 38 C4 64 56-38 C4 5E 56 38 C4 55 56	8.1V8.rV8.~V8..VV
002920	38 C4 50 56 38 C4 4B 9C-C4 37 56 48 C4 2A 56 48	8.PVS.H..SVH.*VH
002930	C4 20 56 48 C4 1B 56 48-C4 11 56 48 C4 0C 56 48	. VH..VH..VH..VH
002940	C4 05 56 48 OD A0 06 00-03 0C 00 00 00 4B 9C 0B	..VH.....S..
002950	00 08 00 54 05 3E A0 B8-02 01 A4 12 C8 08 00 00	...T.~.....
002960	57 56 1E B8 00 00 0E D8-68 00 03 6B 00 D0 9A 00	WV.....n..h....
002970	00 00 00 83 C4 04 6A 00-6A 01 9A 00 00 00 00 00 B3	....j..j.....+
002980	C4 04 6A 01 6A 01 9A 00-00 00 00 83 C4 04 2B F5&.....+
002990	BB C6 BE 06 0C 00 26 BB-B4 00 00 BB FF 00 2B C6	..&....&.....+
0029A0	BB FB 26 8A B4 00 00 26-BB 85 00 04 BB C6 99 2B	...F.&....&....
0029B0	C2 D1 F8 BB 46 FA 26 BB-84 00 01 26 BB 85 00 03	,&....&....F...
0029C0	2C 80 26 BB B4 00 02 26-BB 85 00 05 46 B1 FE 00	.I..v.j.j.....
0029D0	01 7C BD B9 76 FE 6A 00-6A 02 9A 00 00 00 00 B3	..j..j.j.j.....
0029E0	C4 04 6A 01 6A 02 6A FF-6A 00 9A 00 00 00 00 00 B3	..j..j.j.j.....
0029F0	C4 08 6A 01 6A 02 6A FF-6A 00 9A 00 00 00 00 00 B3	..h.....h..
002A00	C4 08 6B FF 00 9A 00 00-00 00 83 C4 02 6B 00 02	h..j.j.....j
002A10	6B 00 02 6A 00 6A 00 9A-00 00 00 00 83 C4 08 6A&..
002A20	00 9A 00 00 00 00 00 83 C4-02 BE 06 06 00 26 BB 1E	...@.*.P.....&..
002A30	00 00 8A B7 40 01 2A E4-50 BE 06 08 00 26 BB 1E 00 00	...@.P.....&....
002A40	00 00 8A B7 40 01 50 BE-06 0A 00 26 BB 1E 00 00	..@.Pj.....j..
002A50	BA B7 40 01 50 6A 01 9A-00 00 00 00 83 C4 08 6A	.j.....j.j..
002A60	00 6A 04 9A 00 00 00 00-83 C4 04 6A 00 6A 04 9A	.....j.j.....
002A70	00 00 00 00 00 83 C4 04 6A-00 6A 05 9A 00 00 00 00	...j.j.....
002A80	83 C4 04 6A 00 6A 05 9A-00 00 00 00 83 C4 04 BE	...&.>..u.&....
002A90	06 04 00 26 B3 3E 00 00-00 75 07 26 C7 06 02 00 6D	G.&.>..u.&....m
002AA0	47 00 26 B3 3E 02 00 00-75 07 26 C7 06 04 00 20 00	.&.>..u.&....
002AB0	00 26 B3 3E 04 00 00 75-07 26 C7 06 04 00 26 00 26	&.>..u.&....&.&
002AC0	26 B3 3E 06 00 00 75 07-26 C7 06 06 00 26 00 26 B3	>..u.&....j..j
002AD0	B3 3E 08 00 00 75 07 26-C7 06 08 00 0C 00 26 B3	>..u.&....j..j
002AE0	3E 0A 00 00 75 07 26 C7-06 0A 00 08 00 6A 01 6A	.....RP.....
002AF0	02 BB 00 00 BA 00 00 52-50 0E EB 00 00 B3 C4 08&....&....
002B00	BE 06 02 00 26 C7 06 00-00 00 00 26 C7 06 02 00	...&.>..u....&..
002B10	00 00 26 B3 3E 04 00 00-75 15 BE 06 04 00 26 A1	...&.>..u....&..

EP 0 401 077 A2

002B20	04 00 99 2B C2 D1 FB BE-06 02 00 26 A3 04-00 26	...+.....&...&
002B30	B3 3E 06 00 00 75 15 BE-06 04 00 26 A1 06 00 99	.>...u.1....&...&
002B40	2B C2 D1 F8 BE 06 02 00-26 A3 06 00 26 B3 3E 08	+.....&...&.>.
002B50	00 00 75 15 BE 06 04 00-26 A1 04 00 99 2B C2 D1	..u.....&...+..
002B60	F8 BE 06 02 00 26 A3 08-00 26 B3 3E 0A 00 00 75	.....&...&.>..u
002B70	15 BE 06 04 00 26 A1 06-00 99 2B C2 D1 F8 BE 06&...+....
002B80	02 00 26 A3 0A 00 1F 5E-5F C9 CB 90 C8 00 00 00	..&....^.....
002B90	1E B8 00 00 BE D8 FF 76-0A FF 76 0C 9A 00 00 00	.....V...V....
002BA0	00 B3 C4 04 C4 5E 06 26-FF 77 0A 26 FF 77 08 26	....^&..W..&..W..&
002BB0	FF 77 06 26 FF 77 04 26-FF 77 02 26 FF 37 FF 76	..W..&..W..&..W..&7..V
002BC0	0A 6A 01 9A 00 00 00 00-83 C4 10 1F C9 CB C8 00	.j.....
002BD0	00 00 1E B8 00 00 BE D8-FF 76 04 FF 76 0C 9A 00	.....V...V....
002BE0	00 00 00 83 C4 04 C4 5E-06 26 FF 77 0A 26 FF 77	....^&..W..&..W..
002BF0	08 26 FF 77 06 26 FF 77-04 26 FF 77 02 26 FF 37	..&..W..&..W..&..W..&7
002C00	FF 76 0A 6A 00 9A 00 00-00 00 B3 C4 10 1F C9 CB	.v.j.....
002C10	D3 9C 21 01 CE AA 56 02-CE 83 56 1D CA 78 9D CE	..!...V...V..x..
002C20	68 56 02 CE 41 56 1D CA-36 9D C6 28 56 38 C6 24	HV..AV..&..(VB..\$
002C30	9C C6 1B 56 48 C6 17 9C-C6 10 56 38 C6 0E 56 38	...VH....VB..VB
002C40	C6 07 9C C5 FE 56 48 C5-FA 9C C5 F3 56 38 C5 EE	....VH....VB..
002C50	56 38 C5 EA 9C C5 E1 56-48 C5 DD 9C C5 D6 56 38	V8.....VH....VB
002C60	C5 D1 56 38 C5 CD 9C C5-C4 56 48 C5 C0 9C C5 B9	..V8.....VH....
002C70	56 38 C5 B2 56 38 C5 AB-56 38 C5 A6 9C 85 9F 56	V8..V8..V8....V
002C80	59 C9 99 56 48 C5 96 56-48 C5 8D 56 48 C5 85 56	Y..VH..VH..VH..V
002C90	48 C5 7E 56 48 C5 76 56-48 C5 6F 56 48 C5 67 56	H..~VH..VVH..oVH..gV
002CA0	48 C5 60 56 48 C5 58 56-48 C5 51 56 48 C5 49 56	H..VH..XVH..GVH..IV
002CB0	48 C5 42 56 48 C5 34 56-48 C5 35 9C CD 2C 56 18	H..BVH..;VH..5...V.
002CC0	CD 20 56 18 CD 14 56 18-CD 08 56 18 CC FC 56 35	. V...V...V...V5
002CD0	C4 F6 9D C4 F2 56 04 C4-ED 9C C4 E8 9D C4 E4 56	....V.....V
002CEO	07 C4 DF 9C C4 D8 9D C4-D4 56 0A C4 CF 9C CC C6	.....V.....
002CF0	56 1A CC BC 56 16 CC AA-56 56 CC 9F 56 31 CC 8F	V...V...VV..V1..
002D00	56 31 CC 7F 56 26 C4 6E-54 05 C4 69 54 05 C4 62	V1.V&.nT..iT..b
002D10	54 05 C4 5D 54 05 C4 4E-54 05 C4 49 54 05 C4 3D	T..JT..NT..IT..=
002D20	54 05 C4 38 9C CC 2B 56-34 CC 1F 56 33 CC 13 56	T..B..+V4..V3..V
002D30	4D C8 08 9D B7 8A 02 00-00 74	M.....t
002D30	4D C8 08 9D B7 8A 02 00-00 74	M.....t

EP 0 401 077 A2

000000	80 0B 00 09 62 6B 72 6D-5F 39 37 2E 63 60 88 07	....bkrm_97.c'..
000010	00 00 00 4D 53 20 43 6E-B8 09 00 00 00 9F 4C 4C 49	...MS_Cn.....LLI
000020	42 43 45 25 88 06 00 00-9D 32 6C 4F E8 B8 06 00	BCE%.....210....
000030	00 A1 01 43 56 37 96 35-00 00 06 44 47 52 4F 55	...CV7.5...DGRDU
000040	50 0C 42 4B 52 4D 5F 39-37 5F 54 45 5B 54 04 43	F_BKRM_97_TEXT.C
000050	4F 44 45 05 5F 44 41 54-41 04 44 41 54 41 05 43	ODE._DATA.DATA.C
000060	4F 4E 53 54 04 5F 42 53-53 03 42 53 53 36 98 07	ONST._BSS.BSS6..
000070	00 48 36 0B 03 04 01 D0-98 07 00 48 96 01 05 06	.H6.....H....
000080	01 76 9B 07 00 4B 26 00-07 07 01 E4 98 07 00 48	.V...H…....H
000090	00 00 08 09 01 07 9A 08-00 02 FF 03 FF 04 FF 02	.....
0000A0	56 -9C 0D 00 00 03 01 02-02 01 03 04 40 01 45 01	V.....E.E.
0000B0	C0 8C 23 02 09 5F 5F 66-6C 74 75 73 65 64 00 06	FJSRQQ..FISRQQ..
0000C0	46 4A 53 52 51 51 00 06-46 45 53 52 51 51 00 06	FIERQQ..FIDRQQ..
0000D0	46 49 45 52 51 51 00 06-46 47 44 52 51 51 00 06	FIWRQQ.._acrtus
0000E0	46 49 57 52 51 51 00 0A-5F 5F 61 63 72 74 75 73	ed.._scroll.._ge
0000F0	65 64 00 07 5F 73 63 72-6F 6C 6C 00 13 5F 67 65	t_experiment_key
000100	74 5F 65 78 70 65 72 69-6D 65 6E 74 5F 65 65 79	.._im_softinit..
000110	00 0C 5F 69 6D 5F 73 6F-66 74 62 6E 67 74 00 08	_im_average.._im
000120	5F 69 6D 5F 61 76 65 72-61 67 65 00 06 5F 69 6D	_sync.._frame.._
000130	5F 73 79 6E 63 00 06 5F-66 72 61 6D 65 00 0E 5F	clip_subtract.._
000140	63 6C 69 70 5F 73 75 62-74 72 61 63 74 00 11 5F	remove_bar_graph
000150	72 65 6D 6F 76 65 5F 62-61 72 5F 67 72 61 70 68	.._errmsg.._bkrm
000160	00 07 5F 65 72 72 6D 73-67 00 08 5F 62 6B 72 6D	_97.._im_video..
000170	5F 39 37 00 09 5F 69 6D-5F 76 69 64 65 00 13 5F 63 6C	_im_outmode.._cl
000180	5F 69 6D 5F 6F 75 74 6D-6F 64 65 00 13 5F 63 6C	ear_message_area
000190	65 61 72 5F 6D 65 73 73-61 67 65 5F 61 72 65 61	.._im_outpath.._
0001A0	00 0B 5F 69 6D 5F 6F 75-74 70 61 74 68 00 04 5F	im_gomode.._clos
0001B0	69 6D 5F 6F 70 6D 6F 64-65 00 15 5F 63 6C 6F 73	e_standards_file
0001C0	65 5F 73 74 61 6E 64 61-72 64 73 5F 66 65 6C 65	.._im_cpwin.._g
0001D0	00 0A 5F 69 6D 5F 63 70-75 77 69 6E 00 0E 5F 67	et_standards.._m
0001E0	65 74 5F 73 74 61 6E 64-61 72 64 73 00 0B 5F 6D	essage_on.._draw
0001F0	65 73 73 61 67 65 5F 6F-6E 00 0C 5F 64 72 61 77	_border.._xbkrm_
000200	5F 62 6F 72 64 65 72 00-09 5F 78 62 6B 72 6D 5F	_97.._set_message
000210	39 37 00 0C 5F 73 65 74-5F 6D 65 73 73 61 67 65	.._im_interimage
000220	00 0E 5F 69 6D 5F 69 6E-74 65 72 69 6D 61 67 65	.._set_screen_tit
000230	00 11 5F 73 65 74 5F 73-63 72 65 65 6E 5F 74 69	le.._ftol.._ze
000240	74 6C 65 00 06 5F 5F 66-74 6F 60 00 05 5F 7A 65	ro.._one.._two..
000250	72 6F 00 04 5F 6F 6E 65-00 04 5F 74 77 6F 00 06	_three.._message
000260	5F 74 68 72 65 65 00 0C-5F 6D 65 73 73 61 67 65	_off.._all.._spr
000270	5F 6F 66 66 00 04 5F 61-6C 6C 00 08 5F 73 70 72	intf.._draw_bar_
000280	69 6E 74 66 00 0F 5F 64-72 61 77 5F 62 61 72 5F	graph.._chan.._e
000290	67 72 61 70 68 00 05 5F-63 68 61 6E 00 08 5F 67	r_chan.._set_bar
0002A0	72 5F 63 68 61 6E 00 0F-5F 73 65 74 5F 62 61 72	_slider.._get_st
0002B0	5F 73 6C 69 64 65 72 00-1C 5F 57 65 74 5F 73 74	andard_grid_struct
0002C0	61 6E 64 61 72 64 5F 67-72 69 64 5F 73 74 72 75	ture.U....._cl
0002D0	63 74 75 72 65 00 55 90-2E 00 00 01 0E 5F 63 6C	

MODULE 2

EP 0401077 A2

0002E0	69 70 5F 73 75 62 74 72-61 63 74 00 00 00-08 5F	ip_subtract...-
0002F0	62 6B 72 6D 5F 39 37 16-0B 00 09 5F 78 62 6B 72	bkrm_97...._xbkr
000300	6D 5F 39 37 DE 00 00 29-88 04 00 00 A2 01 D1 A0	m_97...).....
000310	53 01 02 07 00 42 69 6F-6C 6F 67 69 63 61 6C 20	S...Biological
000320	56 69 73 69 6F 6E 20 20-42 4B 52 4D 5F 39 37 20	Vision BKRM_97
000330	42 61 63 6B 67 72 6F 75-6E 64 20 52 65 6D 6F 76	Background Remov
000340	61 60 00 43 61 6E 27 74-20 61 63 63 65 73 73 20	al.Can't access
000350	61 74 61 6E 64 61 72 64-73 20 69 6E 66 6F 72 6D	standards inform
000360	73 74 61 6E 64 61 72 64-73 20 6B 65 79 20 25 6C	ation for key %1
000370	61 74 69 6F 6E 20 66 6F-72 20 6B 65 79 20 25 6C	d.Using default
000380	64 00 55 73 69 6E 57 20-64 65 66 61 75 6C 74 20	grid structure d
000390	67 72 67 64 20 73 74 72-75 63 74 75 72 65 20 64	ata.Using default
0003A0	61 74 61 00 55 73 69 6E-67 20 64 65 66 61 75 6C	grid structure
0003B0	74 20 67 72 69 64 20 73-74 72 75 63 74 75 72 65	data.Setting up
0003C0	20 64 61 74 61 00 53 65-74 74 69 6E 67 20 75 70	for background
0003D0	20 66 6F 72 20 62 61 63-6B 67 72 6F 75 6E 64 20	removal...Raciu
0003E0	72 65 6D 6F 76 61 60 2E-2E 2E 00 52 61 64 69 75	s = %d Xincremen
0003F0	73 20 3D 20 25 64 20 58-69 6E 63 72 65 6D 65 6E	t = %d Yincremen
000400	74 20 3D 20 25 64 00 52-65 6D 6F 76 69 6E 67 20	t = %d.Removing
000410	62 61 53 6B 67 72 6F 75-6E 64 2E 2E 00 42 61	background removal
000420	63 6B 67 72 6F 75 6E 64-20 72 65 6D 6F 76 61 6C	percent complet
000430	20 70 65 72 63 65 6E 74-20 63 6F 6D 70 6C 65 74	e.Cleaning up ba
000440	65 00 43 6C 65 61 6E 69-6E 67 20 75 70 20 62 61	ckground removal
000450	63 6B 67 72 6F 75 6E 64-20 72 65 6D 6F 76 61 6C	....I.....d.2..
000460	2E 2E 2E 00 49 A0 07 00-02 00 00 64 00 32 D1 A0	.....A.D..V.C
000470	07 00 02 04 00 96 B4 C8-41 A0 44 00 02 56 01 43	opyright (c) 198
000480	6F 70 79 72 69 67 68 74-20 28 63 29 20 31 39 38	9, Biological Vi
000490	39 2C 20 42 69 6F 6C 6F-67 69 63 61 6C 20 56 67	sion Inc. All r
0004A0	73 69 6F 6E 20 49 6E 63-2E 20 20 41 6C 6C 20 72	ights reserved.p
0004B0	69 67 5B 74 73 20 72 65-73 65 72 76 65 64 00 70	.....W....V"
0004C0	A0 06 00 03 00 00 00 00-57 9C 05 00 C8 00 56 22	.....WV...
0004D0	1F A0 E2 00 01 00 00 C8-18 00 00 57 56 1E B8 00	.....&.6..j...
0004E0	00 8E DB 8E 06 00 00 26-FF 36 00 00 6A 01 9A 00	.....j.....
0004F0	00 00 00 B3 C4 04 6A 01-9A 00 00 00 00 83 C4 02	j.j.j.j.....
000500	6A 00 6A 00 6A FF 6A 01-9A 00 00 00 00 00 83 C4 08	j.j.j.j.....
000510	6A 00 6A 00 6A FF 6A 01-9A 00 00 00 00 00 83 C4 02	.F...j.....j
000520	C7 46 FA 00 D0 6A 01 9A-00 00 00 00 83 C4 02 6A	.j.....+..v.
000530	04 6A 00 9A 00 00 00 00-83 C4 04 2B F6 B9 76 EB	.....F.F.....
000540	BB C6 C1 F8 06 89 46 EE-50 9A 00 00 00 00 00 83 C4	..F..F..V.@.F..V
000550	02 BB 46 EB 89 46 FB BB-56 FA 40 89 46 F2 89 56~..^.&.*..
000560	F4 BF 00 02 89 7E EA C4-5E F8 26 BA 07 2A E4 89	F..^.&..F.+F...
000570	46 FC C4 5E F2 26 8A 07-89 46 F6 2B 46 FC 8B CB	..>.+...&...F...
000580	0B C9 7D 02 2B C9 8B C1-26 88 07 83 46 F8 02 83	F...N.u..N..F..F
000590	46 F2 02 FF 4E EA 75 CF-89 4E F0 80 46 E9 04 46	....~.j.....
0005A0	B1 FE DF 01 7E 9A 6A 00-9A 00 00 00 00 83 C4 02	....~.j.....
0005B0	1F 5E 5F C9 CB 09 9C 2B-00 CC D2 56 13 CC 73 56	.^_....+...V..sv

EP 0 401 077 A2

0005C0	18 CC 5D 56 16 CC 51 56-13 CC 42 56 15 CC 52 56	..Jv..qv..bv..2v
0005D0	15 CC 22 56 13 CC 18 56-12 C4 13 56 22 C4 0E 9C	..''v...v...v''...
0005E0	C8 08 9D BB A0 28 00 03-02 00 00 00 00 00 00 00 00 00(.....)
0005F0	00 00 00 00 00 00 00 40-00 00 00 00 00 00 00 00 00 00@.....?
000600	00 00 00 00 00 00 08 40-00 00 00 00 00 00 00 00 00 00@.....
000610	19 00 C8 22 56 24 C8 20-56 26 C8 1E 56 23 C8 04	...''V\$.. V&.. V#..
000620	56 2A C8 02 56 29 C8 00-56 21 50 A0 B7 03 01 DE	V*..V)...V!P....
000630	00 C8 AE 27 00 57 56 1E-B8 00 00 BE D8 BE 06 02	...''WV.....
000640	00 26 A1 00 00 8E 06 04-00 26 A3 00 00 8E 06 00&.....
000650	00 26 A1 00 00 8E 06 06-00 26 A3 00 00 1E 68 07	.....&.....h..h..
000660	00 9A 00 00 00 00 B3 C4-04 58 00 03 68 00 D0 9A	.....h..h..&..6..
000670	00 00 00 00 B3 C4 04 BE-04 04 00 26 FF 36 00 00&..
000680	6A 02 9A 00 00 00 00 B3-C4 04 BE 06 00 00 26 FF	6..j.....
000690	36 00 00 6A 00 9A 00 00-00 00 B3 C4 04 BE 06 04	..&..6.....&..6..
0006A0	00 26 FF 36 00 00 BE 06-00 00 26 FF 36 00 00 9A	.....?..t....
0006B0	00 00 00 00 B3 C4 04 B3-7E 0A 00 74 03 E7 B5 01	.....P...P...?
0006C0	9A 00 00 00 00 89 B6 70-D8 89 9A 72 D8 0B D2 70	.....P...P...P..
0006D0	0A 2B C0 59 B6 72 D8 B9-86 70 D8 FF B6 72 D8 FF	.....P...P...Z..
0006E0	B6 70 D8 9A 00 00 00 00-83 C4 04 89 86 7A D8 B9	.....u...P...P..
0006F0	96 7C D8 0B D0 75 1C FF-B6 72 D8 FF B6 70 D8 1E	h5.....+..1..
000700	68 35 00 9A 00 00 00 00-83 C4 08 2B C0 1F 5E 5F	....F...F...P..
000710	C9 CB 90 8D 46 FA 16 50-8D 86 92 D8 16 50 8D 86	...P..h..P....P
000720	5E DB 16 50 8D 86 68 D8-16 50 8D 86 86 8E D8	....P...P...P..
000730	BD 86 90 D8 16 50 8D 86-84 D8 16 50 8D 86 8E D8	.P...n..P...x..P..
000740	16 50 8D 86 8E D8 16 50-8D 86 78 D8 16 50 9A 00	....(..u...z...)
000750	00 00 00 B3 C4 28 0B C0-75 1D 8B 86 7A D8 0B B6	l.t...l...z....
000760	7C DB 74 A7 FF B6 7C D8-FF B6 7A D8 9A 00 00 00	....x...uG..
000770	00 B3 C4 04 EB 95 90 83-BE 78 D8 00 75 47 B3 BE	n..u6....u9....
000780	6E DB 00 75 40 83 BE BE-D8 00 75 39 B3 BE 84 D8	.u2.hd.j.....
000790	00 75 32 1E 68 64 00 6A-00 9A 00 00 00 00 B3 C4	....x....n....
0007A0	06 C7 86 78 D8 05 00 C7-86 6E DB 05 00 C7 86 BE+....<.....
0007B0	D8 2B 00 C7 86 84 D8 3C-00 C7 86 90 D8 0C 00 C7	.....l...z....
0007C0	B6 86 D8 08 00 FF B6 7C-D8 FF B6 7A D8 9A 00 00	.....u....
0007D0	00 00 B3 C4 04 B3 BE BE-D8 00 75 06 C7 86 8E D8	.....u....
0007E0	08 00 B3 BE 84 D8 00 75-06 C7 86 84 D8 0A 00 B3	....u....
0007F0	BE 90 DB 00 75 06 C7 86-90 D8 0C 00 B3 BE 86 D8	....u....
000800	00 75 06 C7 86 86 D8 08-00 B3 BE 92 D8 00 75 13	....u....
000810	83 7E FA 00 75 0D 9B DF-86 8E D8 9B DF 86 84 D8	....u....F....
000820	EB 0A 90 9B DF 86 92 D8-9B DF 46 FA 9B DE C1 9B	....6....
000830	DC 36 08 00 9B D9 96 60-D8 9B DC 06 10 00 9B DC	....=1..
000840	0E 18 00 9A 00 00 00 00-89 86 88 D8 3D 31 00 7E	....1.....
000850	06 C7 86 88 D8 31 00 8B-86 88 D8 99 B9 04 00 F7	.....
000860	F9 89 86 E8 D8 88 86 88-D8 99 B9 03 00 F7 F9 89	....T.F....F..
000870	86 E6 DB EB 54 BB 46 0A-89 86 88 D8 88 46 0C 89	....F.....1^
000880	B6 E8 D8 8B 46 0E 89 86-E6 D8 83 BE 88 D8 31 7E	....1..h..j....
000890	06 C7 86 88 D8 31 00 1E-68 86 00 6A 00 9A 00 00	

EP 0401 077 A2

0008A0	00 00 B3 C4 06 C7 86 78-D8 05 00 C7 86 6E D8 05	.....x....n..
0008B0	00 C7 86 BE D8 2B 00 C7-86 84 D8 3C 00 C7 86 90+....<...
0008C0	D8 0C 00 C7 86 86 D8 08-00 1E 68 A8 00 9A 00 00	.....h....
0008D0	00 00 B3 C4 04 BE 06 02-00 8B 86 E6 D8 26 39 06	.....&9..
0008E0	00 00 75 08 8B 86 E8 D8-B9 86 E6 D8 8B 86 88 D8	..u.....
0008F0	8E 06 00 00 26 2B 06 00-00 89 86 64 D8 8B 86 88	...&+....d...
000900	D8 99 8E 06 20 00 26 F7-3E 00 00 26 A1 00 00 8B>..&...
000910	CA F7 AE 88 D8 2B C1 89-86 6A D8 8B 86 88 D8 99	....+....j....
000920	26 F7 3E 00 00 89 46 FC-03 8e 88 D8 89 46 FE FF	>...F....F..
000930	B6 E6 D8 FF B6 E8 D8 FF-B6 88 D8 1E 68 CD 00 BD	.....h...
000940	B6 94 D8 16 50 94 00 00-00 00 83 C4 0E BD 86 76	...P.....
000950	D8 16 50 6A 00 9A 00 00-00 00 83 C4 06 8B 86 78	..Pj.....x
000960	D8 B9 86 82 D8 8B 86 6E-D8 89 86 74 D8 8B 86 90	.....n...t...
000970	D8 F7 AE BE D8 03 86 78-D8 89 86 76 D8 8B 86 86	....x...v...
000980	D8 F7 AE 84 D8 03 86 6E-D8 89 86 6C D8 8E 06 20	....n...1...
000990	00 8B 46 08 26 39 06 00-00 75 0A BE 06 22 00 26	..F...&7...u...".&
0009A0	A1 00 00 EB 08 8E 06 02-00 26 A1 00 00 89 86 94&...
0009B0	D8 FF B6 6C D8 FF B6 76-D8 FF 86 74 D8 FF B6 82	...L...v...b...
0009C0	D8 50 FF 76 06 9A 00 00-00 00 83 C4 0C BE 06 04	.P.v.....
0009D0	00 26 FF 36 00 00 6A 02-9A 00 00 00 00 83 C4 04	.&.6..j.....
0009E0	8E 06 04 00 49 9C 03 01-C7 B1 9C CF AB 56 16 C7	....1.....V..
0009F0	A3 56 29 C7 9E 9C CF 95-56 1B C7 7A 56 21 C7 76	.V)....V...zV).V
000AA0	9C C7 70 56 26 C7 6C 9C-C7 66 56 23 C7 5E 9C CF	..pV&.1..fV#.V..
000A10	25 56 1D CF 15 56 27 C7-0C 9D C6 F2 56 23 C6 DC	ZV...V'....V#..
000A20	56 23 C6 D8 56 23 C6 D3-9C C6 C6 56 22 C6 C1 9C	V#..V#....V"...
000A30	C6 AF 56 21 C6 A6 9C CE-9D 56 1A C6 9A 9D CE 6D	..V1....V....m
000A40	56 1D C6 68 9D CE 13 56-20 C6 10 9C C6 0D 56 05	V..h...V ....V.
000A50	C6 0B 9C C6 08 56 05 C6-03 56 05 C6 01 9C C5 FE	....V...V.....
000A60	56 05 C5 FB 56 05 C5 F7-56 05 C5 F2 56 05 C5 EA	V...V...V...V..
000A70	56 05 C5 E5 56 05 CD 9D-56 17 CD 69 56 1D C5 64	V...V...V..iV..d
000A80	9D CD 3C 56 17 CD 1E 56-2C CC D3 56 10 C4 D0 9D	..<V...V...V...
000A90	CC B3 56 19 CC 90 56 09-CC 7F 56 0C C4 7D 56 22	..V...V..V..IV"
000AA0	C4 77 9C C4 73 56 29 C4-6E 9C CC 65 56 12 C4 60	.W..eV).n..eV..)
000AB0	56 22 C4 5B 9C CC 52 56-16 C4 4D 56 29 C4 48 9C	V".E..RV..MV).H.
000AC0	CC 3F 56 0A CC 31 56 1F-C4 2E 9D C4 2A 56 2A C4	.?V..1V....*V*.
000AD0	26 9C C4 22 56 22 C4 1E-9C C4 1A 56 29 C4 16 9C	&.. "V"....V)...
000AE0	C4 12 56 21 C4 0E 9C C8-08 9D BE A0 B4 03 01 91	..V!.....
000AF0	04 26 FF 36 00 00 6A 02-9A 00 00 00 00 B3 C4 04	.&.6..j.....
000B00	6A 01 9A 00 00 00 00 83-C4 02 6A 08 BE 06 02 00	j.....j....
000B10	26 FF 36 00 00 FF 76 06-FF 76 06 9A 00 00 00 00	&.6...v...v.....
000B20	B3 C4 08 6A 08 8E 06 02-00 26 FF 36 00 00 FF 76	...j....&.6...v
000B30	06 FF 76 06 9A 00 00 00-00 83 C4 08 6A 01 9A 00	..v.....j...
000B40	00 00 00 83 C4 02 6A 08-8E 06 24 00 26 FF 36 00	....&.6..&.6...
000B50	00 BE 06 02 00 26 FF 36-00 00 26 FF 36 00 00 9A	....j...\$.&.6.
000B60	00 00 00 00 B3 C4 08 6A-08 8E 06 24 00 26 FF 36	....&.6..&.6..
000B70	00 00 BE 06 02 00 26 FF-36 00 00 26 FF 36 00 00	....&.6..&.6..

EP 0401077 A2

000B80	9A 00 00 00 00 83 C4 08-8E 06 02 00 26 A1-00 00&...
000B90	89 86 8C DB 3D 63 00 7F-54 6B C0 64 8B F8 BB 64	....=c.Tk.d...d
000BA0	00 2B 86 8C D8 89 86 56-D8 01 86 8C D8 BE 06 02	.+....V.....
000BB0	00 26 8B 36 00 00 83 FE-63 7F 25 BB 64 00 2B C6	.&.6....c%..d.+.
000BC0	89 86 58 D8 BB DF 03 DE-03 DD 26 A0 00 00 BB BE	..X.....&...
000BD0	58 D8 57 8D BF EA DB 16-07 F2 AA 5F 03 B6 5B DB	X.W.....-X.
000BE0	83 C7 64 81 FF AC 26 7E-C4 89 B6 66 D8 BB 46 FC	..d...&~...f..F.
000BF0	89 86 8C D8 BB 46 FE 39-86 8C D8 7D 5C 6B 46 FC	....F.9...3\KF.
000C00	64 89 86 56 D8 BB 46 FE-2B 46 FC 89 86 5A D8 01	c..V..F.+F...Z..
000C10	86 8C D8 BB BE 58 D8 2E-06 02 00 26 BB 36 00 00	....3....&.6..
000C20	3B B6 64 D8 7D 24 BB BE-6A D8 25 FE BB 9E 56 DB	j..j..3%..j.+...V.
000C30	03 DE 03 DD BE 06 00 00-26 A0 00 00 BB CF 57 8D	.....&....W.
000C40	BF EA D8 16 07 F2 AA 5F-03 F7 83 86 56 D8 64 FF	....2....V..G.
000C50	BE 5A D8 75 C2 89 B6 8e-D8 8B 86 6A D8 BE 06 00	z..u...t...3....
000C60	00 26 2B 06 00 00 89 8e-6A D8 26 A1 00 00 03 46	.&+....&....F
000C70	FC 89 86 7E D8 BE 06 02-00 26 A1 00 00 89 86 80	....7....&...
000C80	D8 8B 46 FC 39 86 80 D8-7D 7D 5B 86 80 D8 64 89	..F.9...3\K...d.
000C90	86 56 D8 6B 86 8A D8 84-89 86 5B D8 8B 46 FC 2B	..9..k...d..k..F.+
000CA0	86 80 D8 89 86 5A D8 01-86 80 D8 F7 D8 01 86 8A	....Z.....
000CB0	D8 8B 76 FE BB BE 7E D8-8E 06 00 00 26 2B 0E 00	..V...3....5+..
000CC0	00 3B CE 7D 26 26 BB 3E-00 00 8B 9E 56 D8 03 D9	..3..3&&..>...V..
000CD0	03 DD 8B C7 36 88 87 EA-D8 8B 9E 58 D8 03 D9 03	....6....X...
000DE0	DD 36 8B 87 EA D8 41 3B-CE 7D DF 83 AE 58 D8 64	.6...A;..1...X..d
000CF0	FF 8E 7E D8 46 83 86 56-D8 64 FF BE 5A D8 75 B4	..~.F..V..d..Z..u.
000D00	89 76 FE 89 8E 66 D8 9A-00 00 00 00 1E 68 F9 00	..V...f.....h..
000D10	6A 01 9A 00 00 00 00 83-C4 06 1E 68 10 01 6A 05	j.....h...j.
000D20	6A 0A 9A 00 00 00 00 83-C4 08 8E 06 02 00 26 A1	j.....&..
000D30	00 00 B9 86 8A D8 8B 86-6A D8 39 86 8A D8 7C 03	....j..7...1.
000D40	E9 67 01 8B 86 64 D8 F7-D8 89 86 54 D8 6B 86 8A	..9...d....T..k..
000D50	D8 64 89 86 5A D8 6B 86-E8 D8 64 89 86 52 D8 6A	,d..Z..k...d..R..j
000D60	00 FF B6 6A D8 FF B6 8A-D8 9A 00 00 00 00 83 C4	...j.....
000D70	06 8E 06 02 00 26 BB 36-00 00 3B B6 6A D8 7C 03	....&..6...;..j..1.
000D80	E9 06 01 8B 86 54 D8 69-86 56 D8 BB 86 64 D8 2B	....T...V...d.+
000D90	86 8A D8 89 86 58 D8 8B-7E 08 8B 9E.5A D8 03 DE	....X..~...Z...
000DA0	03 DD 36 80 BF EA D8 00-75 03 E9 CF 00 8B 86 58	..6....u.....X
000DB0	D8 89 86 66 D8 8B 86 56-D8 03 C6 89 86 8C D8 50	..f...V.....P
000DC0	FF B6 66 D8 8E 06 00 00-26 FF 36 00 00 BE 06 24	..f....&..6...\$
000DD0	00 26 FF 36 00 00 9A 00-00 00 00 83 C4 08 6A 01	..&..6.....j.
000DE0	9A 00 00 00 00 83 C4 02-57 BE 06 20 00 26 FF 36	.....W..&..6
000DF0	00 00 8E 06 00 00 26 FF-36 00 00 BE 06 02 00 26	....&..6.....&
000E00	FF 36 00 00 9A 00 00 00-00 00 00 83 C4 08	.6.....W..
000E10	00 26 FF 36 00 00 8E 06-00 00 26 FF 36 00 00 BE	..&..6.....&..6..
000E20	06 02 00 26 FF 36 00 00-9A 00 00 00 00 83 C4 08	...&..6.....
000E30	6A 01 9A 00 00 00 00 83-C4 02 6A 08 8E 06 04 00	j.....j....
000E40	26 FF 36 00 00 8E 06 20-00 26 FF 36 00 00 26 FF	&..6....&..6..&.
000E50	36 00 00 9A 00 00 00 00-83 C4 08 6A 08 8E 06 04	6.....j....

EP 0401077 A2

000E60	00 26 FF 36 00 00 BE 06-20 00 26 FF 36 00 26 26	.&.6.... .&.6..&
000E70	FF 36 00 00 9A 00 00 00-00 83 C4 08 03 B6 E6 DB	.6.....
000E80	39 B6 6A D8 7E 03 E9 11-FF 8B 86 52 DB 01 B6 5A	9. j.~.....R..Z.
000E90	D8 8B 86 E8 D8 01 86 BA-DB 8B 86 6A DB 39 B6 8A	.....j.9..
000EA0	DB 1C 90 2C 01 CF 84 56-1E C7 81 56 23 C7 7C 56	...,.V...V#.IV
000EB0	23 C7 77 9C C7 73 56 29-C7 6E 9C CF 63 56 1E C7	#.W..sV).n..CV..
000EC0	60 56 23 C7 5B 56 23 C7-56 9C C7 52 56 29 C7 4D	V#. [V#.V..RV).M
000ED0	9C CF 42 56 13 CF 38 56-1E C7 35 56 21 C7 30 9C	..BV..BV..SV!.O.
000EE0	C7 2C 56 22 C7 27 9C C7-23 56 23 C7 1E 9C CF 14	.,V". / ..#V#..
000EF0	56 1E C7 11 56 21 C7 0C-9C C7 08 56 22 C7 03 9C	V...V!.... V"...
000FO0	C6 FF 56 23 C6 FA 9C CE-F0 56 13 CE E6 56 08 C6	..V#.... V...V..
000F10	E3 56 24 C6 DE 9C C6 DA-56 22 C6 D5 9C C6 87 56	.V\$.... V".... V
000F20	21 C6 82 9C CE 79 56 2B-C6 3F 56 21 C6 3B 9C CE	1...yV+.?V!.+..
000F30	32 56 28 C6 2B 9D CE 32-56 1D C6 1D 9D CE 17 56	2V(.+.. "V.... V
000F40	25 C5 D7 56 22 C5 CE 56-22 C5 C9 9C C5 8A 56 21	Z...V" ..V".... V!
000F50	C5 86 9C C5 7B 56 22 C5-73 56 22 C5 6E 9C C5 49	.... (V".sV".n..I
000F60	56 22 C5 45 9C C5 2D 56-21 C5 28 9C C4 DB 56 21	V".E.. -V!. (..V!
000F70	C4 C3 56 21 C4 BE 9C C4-9D 56 21 C4 99 9C CC 90	..V!.... V!....
000F80	56 1E C4 BD 56 21 C4 88-56 21 C4 83 9C C4 7F 56	V...V!..V!.... V
000F90	24 C4 7A 9C CC 6F 56 1E-C4 6C 56 21 C4 57 56 21	\$..z..oV..IV!.gV!
000FA0	C4 62 9C C4 5E 56 24 C4-59 9C CC 4E 56 13 CC 44	.b..^V\$.Y..NV..D
000FB0	56 1E C4 3B 56 21 C4 36-9C CC 2B 56 1E C4 22 56	V...;V!.6..+V.. "V
000FC0	21 C4 1D 9C CC 12 56 13-CC 08 56 16 C4 03 56 29	!... .V...V...V)
000FD0	63 A0 7F 02 01 41 08 7D-03 E9 B9 FE 89 86 7E DB	C...A.3....
000FE0	6A 00 FF B6 6A D8 FF B6-6A DB 9A 00 00 00 00 83	j...j...j....
000FF0	C4 06 1E 68 34 01 6A 01-9A 00 00 00 00 83 C4 06	...h4.j....
001000	6A 00 BE 06 06 00 26 FF-36 00 00 6A FF BE 06 04	.&.6....
001010	00 26 FF 36 00 00 9A 00-00 00 00 83 C4 08 6A 00	.&.6....
001020	BE 06 06 00 26 FF 36 00-00 6A FF BE 06 04 00 26	....&.6..j....&
001030	FF 36 00 00 9A 00 00 00-00 83 C4 08 6A 01 9A 00	.6.....j...
001040	00 00 00 83 C4 02 6A 08-BE 06 00 00 26 FF 36 00	....j....&.6.
001050	00 BE 06 24 00 26 FF 36-00 00 26 FF 36 00 00 9A	...\$.&.6..&.6...
001060	00 00 00 00 83 C4 08 6A-08 BE 06 00 00 26 FF 36	....j....&.6
001070	00 00 BE 06 24 00 26 FF-36 00 00 26 FF 36 00 00	...\$.&.6..&.6..
001080	9A 00 00 00 00 83 C4 08-6A 01 9A 00 00 00 00 83	....j....
001090	C4 02 C7 86 7E DB 05 00-BE 05 00 6A 05 6A 00 9A	....~....j.j..
0010A0	00 00 00 00 83 C4 04 6A-08 BE 06 02 00 26 FF 36	....j....&.6
0010B0	00 00 BE 06 20 00 26 FF-36 00 00 26 FF 36 00 00	.... .&.6..&.6..
0010C0	9A 00 00 00 00 83 C4 08-6A 08 BE 06 02 00 26 FF	....j....&.6
0010D0	36 00 00 8E 06 20 00 26-FF 36 00 00 26 FF 36 00	6.... .&.6..&.6.
0010E0	00 9A 00 00 00 00 83 C4-08 4E 75 AF 6A 08 BE 06	.... .Nu. j...
0010F0	20 00 26 FF 36 00 00 BE-06 00 00 26 FF 36 00 00	.&.6....
001100	26 FF 36 00 00 9A 00 00-00 00 83 C4 08 6A 08 BE	&.6....
001110	06 20 00 26 FF 36 00 00-BE 06 00 00 26 FF 36 00	. .&.6....
001120	00 26 FF 36 00 00 9A 00-00 00 00 83 C4 08 68 FF	.&.6....
001130	00 6A 00 9A 00 00 00 00-83 C4 04 68 FF 00 6A 01	.j....h..j.

EP 0401077 A2

001140	9A 00 00 00 00 B3 C4 04-0E E8 00 00 6A 08-8E 06	.....j..
001150	24 00 26 FF 36 00 00 BE-06 02 00 26 FF 36 00 00	\$..&..6.....&..6..
001160	26 FF 36 00 00 9A 00 00-00 00 83 C4 08 6A 08 8E	\$.6.....j..
001170	06 24 00 26 FF 36 00 00-BE 06 02 00 26 FF 36 00	,\$.&..6.....&..6..
001180	00 26 FF 36 00 00 9A 00-00 00 00 B3 C4 08 6A 08	,&.6.....j..
001190	BE 06 02 00 26 FF 36 00-00 BE 06 00 00 26 FF 36	....&..6.....&..6
0011A0	00 00 26 FF 36 00 00 9A-00 00 00 00 B3 C4 08 6A	,&.6.....j..
0011B0	08 BE 06 02 00 26 FF 36-00 00 BE 06 00 00 26 FF	....&..6.....&..
0011C0	36 00 00 26 FF 36 00 00-9A 00 00 00 00 B3 C4 08	6..&..6.....
0011D0	6A 06 8E 06 00 00 26 FF-36 00 00 BE 06 20 00 26	j.....&..6.....&
0011E0	FF 36 00 00 26 FF 36 00-00 5A 00 00 00 00 B3 C4	,6..&..6.....
0011F0	08 6A 08 BE 06 00 00 26-FF 36 00 00 BE 06 20 00	,j.....&..6.....
001200	26 FF 36 00 00 26 FF 36-00 00 9A 00 00 00 00 B3	\$.6..&..6.....
001210	C4 08 8E 06 20 00 88 46-08 28 39 08 00 00 75 0C&....."
001220	BE 06 02 00 26 A1 00 00-E8 0A 90 90 BE 06 22 00	\$.6.....1...V.
001230	26 A1 00 00 89 86 94 D8-FF B6 6C D8 FF B6 76 DB	..t.....P.. ,&..6
001240	FF B6 74 D8 FF B6 82 D8-50 BE 06 20 00 26 FF 36	....1..yV#.t..EV
001250	00 00 1E 9C 6C 01 C6 79-56 23 C6 74 9C C6 5B 5B	\$.W..0V!.K..EV#.
001260	26 C6 57 9C C6 4F 56 21-C6 4B 9C C6 4E 56 23 C6	=,4V..1V#.V#.
001270	3D 9C CE 34 56 1E C6 31-56 23 C6 2C 5B 23 C6 27	..#V"....V...V#
001280	9C C6 23 56 22 C6 1E 9C-CE 13 56 1E C6 10 56 23	..V#....V"....V
001290	C6 0B 56 23 C6 06 9C C6-02 56 22 C5 FD 9C CD F2	V...V"....V"....V
0012A0	56 1E C5 EF 56 22 C5 EA-56 22 C5 EB 9C C5 E1 56	!....V...V"....V"
0012B0	21 C5 DC 9C CD D1 56 1E-C5 CE 56 22 C5 C9 56 22	....V!....V...
0012C0	C5 C4 9C C5 C0 56 21 C5-BB 9C CD B0 56 1E C5 AD	V!.V!....V\$...
0012D0	56 21 C5 AB 56 21 C5 A3-9C C5 9F 56 24 C5 9A 9C	..V...V!..V!....
0012E0	CD 8F 56 1E C5 BC 56 21-C5 87 56 21 C5 B2 9C C5	~V\$.y..sv..jV..J
0012F0	7E 56 24 C5 79 9C 85 73-56 0E CD 6A 56 0D CD 5D	V..PV..MV".HV".C
001300	56 0D CD 50 56 1E C5 4D-56 22 C5 4E 56 22 C5 43	..?V#.../V...V"
001310	9C C5 3F 56 23 C5 3A 9C-CD 2F 56 1E C5 2C 56 22	,"V"..."V#....
001320	C5 27 56 22 C5 22 9C C5-1E 56 23 C5 19 9C CD 0B	V...V#..V#....V
001330	56 1E C5 06 56 23 C5 03-56 23 C4 FE 9C C4 FA 56	!....V...V#..V#
001340	21 C4 F5 9C CC EA 56 1E-C4 E7 56 23 C4 E2 56 23	....V!....V...
001350	C4 DD 9C C4 D9 56 21 C4-D4 9C CC C9 56 0B CC B4	V...V...V\$..V\$..
001360	56 13 CC AA 56 1E C4 A7-56 24 C4 A2 56 24 C4 9D	...V"....V...V\$
001370	9C C4 99 56 22 C4 94 9C-CC 89 56 1E C4 86 56 24	..V\$.1..xV".s..h
001380	C4 81 56 24 C4 7C 9C C4-78 56 22 C4 73 9C CC 68	V..^V..[V].V..PV
001390	56 13 CC 5E 56 15 C4 5B-56 29 C4 56 9C C4 50 56	*.K..@V..=V).B..
0013A0	2A C4 4B 9C CC 40 56 15-C4 3D 56 29 C4 38 9C C4	2V*-."V....V
0013B0	32 56 2A C4 2D 9C CC 22-56 1D C4 1D 9D CC 14 56	+V.^.....
0013C0	2B 56 A0 7E 00 01 BC 0A-9A 00 00 00 00 B3 C4 0C	j..j.....
0013D0	6A 03 6A 02 9A 00 00 00-00 B3 C4 04 BE 06 00 00	\$.6..j.....j
0013E0	26 FF 36 00 00 6A 01 9A-00 00 00 00 B3 C4 04 6A	-j..j.j.....j
0013F0	00 6A 03 6A FF 6A 02 9A-00 00 00 00 B3 C4 08 9A	-j..j.j.....
001400	00 6A 03 6A FF 6A 02 9A-00 00 00 00 B3 C4 08 9A^..
001410	00 00 00 00 9A 00 00 00-00 BB 01 00 1F 5E 5F C9^..

EP 0 401 077 A2

001420	CB 90 C8 00 00 00 1E BB-00 00 BE DB 6A 00 6A 00	.....j. j.
001430	6A 00 FF 76 0B FF 76 06-0E EB 00 00 B3 C4 0A 1F	j..v..v.....
001440	C9 CB E6 9C 2B 00 84 72-56 1C C8 60 9D CC 4D 56	...+..rV..`..MV
001450	14 CC 48 56 0F CC 40 56-15 CC 30 56 15 CC 20 56	.HV..@V..OV.. V
001460	12 C4 1B 56 22 C4 16 9C-CC 0D 56 16 CC 01 56 1B	...V"....V..V.
001470	BE 8A 02 00 00 74	....t
001470	BE 8A 02 00 00 74	....t

EP 0401077 A2

000000	80 0B 00 09 71 75 61 64-5F 39 37 2E 63 61 68 07	....quad_97.ca..
000010	00 00 00 4D 53 20 43 6E-88 09 00 00 9F 4C 4C 49	...MS Cn.....LLI
000020	42 43 45 25 88 06 00 00-9D 32 6C 4F E8 88 06 00	BCE%.....210....
000030	00 A1 01 43 56 37 96 35-00 00 06 44 47 52 4F 55	...CV7.5...DGROUP
000040	50 0C 51 55 41 44 5F 39-37 5F 54 45 58 54 04 43	P.QUAD_97_TEXT.C
000050	4F 44 45 05 5F 44 41 54-41 04 44 41 54 41 05 43	ODE._DATA.DATA.C
000060	4F 4E 53 54 04 5F 42 53-53 03 42 53 53 37 98 07	DNST._BSS.BSS7..
000070	00 48 B8 23 03 04 01 36-98 07 00 48 9A 0A 05 06	.H.#...6...H....
000080	01 69 98 07 00 48 2E 00-07 07 01 DC 98 07 00 48	.1...H.....H....
000090	1E 00 08 09 01 E9 9A 08-00 02 FF 03 FF 04 FF 02	.....
0000A0	56 9C 0D 00 00 03 01 02-02 01 02 04 40 01 45 01	.....fitused..
0000B0	C0 BC A8 00 09 5F 5F 66-6C 74 75 73 65 64 00 06	FISR00..FISR00..
0000C0	46 4A 53 52 51 51 00 06-45 49 53 52 51 51 00 06	FIER00..FIDR00..
0000D0	46 49 45 52 51 51 00 06-46 49 44 52 51 51 00 06	FIWR00.._acrtus
0000E0	46 49 57 52 51 51 00 0A-5F 5F 61 63 72 74 75 73	ed.._set_experim
0000F0	65 A4 00 13 5F 67 65 74-5F 65 78 70 65 72 69 60	ent_key.._read_r
000100	65 6E 74 5F 6B 65 79 00-11 5F 72 55 61 64 5F 72	am_disk_fb.._saF
000110	A1 6D 5F 64 67 73 6B 5F-66 62 00 07 5F 5F 61 46	uldiv.._get_pixe
000120	75 6C 64 69 76 00 12 5F-67 65 74 5F 70 59 79 65	ls_per_mm...mess
000130	6C 73 5F 70 65 72 5F 6D-6D 00 00 5F 6D 65 73 73	age_off.._ctypes
000140	61 67 65 5F 6F 66 66 00-07 5F 5F 63 74 79 70 65	.._sprintf.....
000150	00 08 5F 73 70 72 69 6E-74 66 00 8A B4 09 00 06	mv_cir....._men
000160	6D 76 5F 63 69 72 00 BD-8C 16 00 08 5F 6D 65 6E	u_wm..._im_paint.
000170	75 5F 77 6E 00 09 5F 69-6D 5F 70 61 69 6E 74 00	E...clear_YN_fi
000180	45 B4 1D 00 0D 63 6C 65-61 72 5F 59 4E 5F 66 60	eg..REPORT_CIRC.
000190	61 67 00 0B 52 4E 50 4F-52 54 5F 43 49 52 43 00	..N.._unlink.._c
0001A0	B5 8C 4E 01 07 5F 75 6E-6C 69 6E 6B 00 10 5F 63	lear_menu_area..
0001B0	6C 65 61 72 5F 6D 65 6E-75 5F 61 72 65 61 00 08	_im_rowr.._write
0001C0	5F 69 6D 5F 72 6F 77 72-00 17 5F 77 72 69 74 65	_density_record?
0001D0	5F 64 65 6E 73 69 74 79-5F 72 65 63 6F 72 64 39	7..._close_standa
0001E0	37 00 15 5F 63 60 6F 73-65 5F 73 74 61 6E 64 61	rds_file.._im_rd
0001F0	72 64 73 5F 66 69 6C 65-00 08 5F 67 6D 5F 72 6F	ww.._im_todisk..
000200	77 77 00 0A 5F 69 6D 5F-74 6F 64 69 73 6B 00 0E	_get_standards..
000210	5F 67 65 74 5F 73 74 61-6E 64 61 72 64 73 00 07	_errmsg.._im_dra
000220	5F 65 72 72 6D 73 67 00-0C 5F 69 6D 5F 64 72 61	wmode.._set_menu
000230	77 6D 6F 64 65 00 0F 5F-73 65 74 5F 6D 65 6E 75	_title.._close..
000240	5F 74 69 74 6C 65 00 0E-5F 63 6C 6F 73 65 00 08	_quad_97.._strds
000250	5F 71 75 61 64 5F 39 37-00 07 5F 73 74 72 64 73	p.._set_menu_lin
000260	70 00 0E 5F 73 65 74 5F-6D 65 6E 75 5F 6C 69 6E	e.._densm.._im_o
000270	65 00 06 5F 64 65 6E 73-6D 00 0B 5F 69 6D 5F 6F	utpath.._set_mes
000280	75 74 70 61 74 68 00 0C-5F 73 65 74 5F 6D 65 73	sage.._mv_box.._
000290	73 61 67 65 00 07 5F 6D-76 5F 62 6F 78 00 0E 5F	im_interimage.._
0002A0	69 6D 5F 69 6E 74 65 72-69 6D 61 67 65 00 11 5F	set_screen_title
0002B0	73 65 74 5F 73 63 72 65-65 6E 5F 74 69 74 60 65	.._im_circle.._o
0002C0	00 0A 5F 69 6D 5F 63 69-72 63 6C 65 00 16 5F 67	et_f_optical_den
0002D0	65 74 5F 66 5F 6F 70 74-69 63 61 6C 5F 64 65 6E	

MODULE 3

EP 0 401 077 A2

0002E0	73	69	74	79	00	0A	5F	69-6D	5F	70	69	78	62	0C	74	sity.._im_pixbit
0002F0	00	23	B4	19	00	0B	43	4C-45	41	52	5F	46	52	41	4D	.#....CLEAR_FRAM
000300	45	00	09	74	65	78	74	5F-70	72	65	70	00	13	8C	15	E..text_prep....
000310	00	12	5F	77	72	69	74	65-5F	72	61	6D	5F	64	69	73	.._write_ram_dis
000320	6B	5F	66	62	00	F3	B4	0A-00	07	72	6F	77	5F	74	78	k_fb.....row_tx
000330	74	00	24	8C	4C	00	05	5F-6F	70	65	6E	00	1C	5F	75	t.\$._L..._open.._u
000340	70	64	61	74	65	5F	6D	6F-75	73	65	5F	62	75	74	74	update_mouse_but
000350	6F	6E	5F	64	69	73	70	6C-61	79	00	0C	5F	69	6D	5F	on_display.._im_
000360	73	63	74	63	6F	6C	6F	72-00	07	5F	49	4E	54	44	53	setcolor.._INTDS
000370	50	00	0D	5F	69	6D	5F	73-65	74	62	63	6F	6C	6F	72	F.._im_setbcolor
000380	00	BB	B4	0E	00	0B	4C	41-42	45	4C	5F	43	45	4C	4D	.....LABEL_CELL
000390	53	00	01	8C	2B	00	09	5F-69	61	5F	6F	62	73	75	6D	S...+.._im_obsun
0003A0	00	03	5F	6B	69	00	07	5F-76	5F	70	6C	73	74	00	0F	.._ki.._v_plst..
0003B0	5F	67	65	74	5F	64	65	73-6B	5F	73	70	61	63	65	00	_get_disk_space.
0003C0	2F	B4	0B	00	08	6C	61	62-65	6C	5F	72	63	00	05	BC	/.label_rc...
0003D0	73	00	07	5F	6B	69	5F	63-68	6B	00	08	5F	69	6D	5F	s.._ki_chk.._im_
0003E0	69	6E	69	74	00	17	5F	67-65	74	5F	72	61	6D	64	69	init.._get_ramdi
0003F0	73	6B	5F	66	72	65	65	5F-73	70	61	63	65	00	0A	5F	sk_free_space.._
000400	69	6D	5F	6F	70	6D	6F	64-65	00	06	5F	77	72	69	74	im_ddmode.._writ
000410	65	00	0D	5F	69	6D	5F	64-69	73	66	6F	72	6D	61	74	e.._im_disformat
000420	00	09	5F	69	6D	5F	76	69-54	65	6F	00	0C	5F	6F	6B	.._im_video.._ok
000430	5F	74	6F	5F	70	72	69	6E-74	00	08	5F	69	6D	5F	73	_to_print.._im_s
000440	77	6E	63	00	3A	B4	18	00-07	42	55	4F	4C	44	5F	33	ync....BUILD_S
000450	00	0C	51	55	41	44	5F	39-37	5F	4C	4F	47	4F	00	95	..QUAD_97_LOGO..
000460	8C	32	00	07	5F	6D	6F	75-73	65	72	00	12	5F	64	65	.Z.._mouser.._de
000470	6C	65	74	65	5F	72	61	6D-64	69	73	6B	5F	66	62	00	lete_ramdisk_fb.
000480	08	5F	69	6D	5F	6D	6F	76-65	00	08	5F	67	6D	5F	72	.._im_move.._im_r
000490	65	63	74	00	4F	B4	0E	00-0B	32	45	50	4F	52	54	5F	ect.0....REPORT_
0004A0	4D	4F	44	45	00	D3	8C	54-00	07	5F	53	54	52	44	53	MODE...T.._STRDS
0004B0	50	00	1C	5F	67	65	74	5F-73	74	61	6E	64	61	72	64	F.._get_standard
0004C0	5F	67	72	69	64	5F	73	74-72	75	63	74	75	72	65	00	_grid_structure.
0004D0	1C	5F	70	75	74	5F	66	69-72	73	74	5F	64	65	6E	73	.._put_first_dens
0004E0	69	74	79	5F	73	74	72	75-63	74	75	72	65	00	0C	5F	ity_structure.._
0004F0	69	6D	5F	66	72	6F	6D	64-69	73	6B	00	11	B4	10	00	im_fromdisk.....
000500	0D	59	4E	72	65	73	70	6F-6E	73	65	6D	73	67	00	D2	.YNresponsemsg..
000510	8C	2B	00	09	5F	63	6C	5F-6F	76	6C	75	74	00	06	5F	+.._cl_ovlut.._
000520	5F	66	74	6F	6C	00	08	5F-69	6D	5F	77	6C	75	74	00	_ftol.._im_wlut.
000530	0B	5F	69	6D	5F	6F	75	74-6D	6F	64	65	00	FC	B4	0A	_im_outmode....
000540	00	07	4D	56	5F	43	49	52-34	00	27	8C	4A	00	08	5F	..MV_CIR4.'J.._
000550	69	6D	5F	6D	61	73	6B	00-09	5F	69	6D	5F	69	6D	61	im_mask.._im ima
000560	67	65	00	1A	5F	70	75	74-5F	6E	74	68	5F	64	65	6E	ge.._put_nth_dens
000570	73	69	74	79	5F	73	74	72-75	63	74	75	72	65	00	09	ity_structure.._
000580	5F	69	6D	5F	63	6C	65	61-72	00	0B	5F	6D	65	73	73	_im_clear.._mess
000590	61	67	65	5F	6F	6E	00	E9-B6	2D	00	00	01	06	6D	76	age_on....-....mv
0005A0	5F	63	69	72	46	23	00	0D-63	6C	65	61	72	5F	59	4E	_cirF#..clear_YN
0005B0	5F	66	6C	61	67	8C	00	00-0B	52	45	50	4F	52	54	5F	_flag....REPORT_

EP 0 401 077 A2

0005C0	43 49 52 43 94 1A 00 79-90 2A 00 00 01 17 5F 77	CIRC...Y.*...._W
0005D0	72 69 74 65 5F 64 65 6E-73 69 74 79 5F 72 65 63	rite_density_rec
0005E0	6F 72 64 39 37 9A 00 00-08 5F 71 75 61 64 5F 39	ord97...._quad_9
0005F0	37 6E 01 00 0D B6 BB 00-00 01 0B 43 4C 45 41 52	7n.....CLEAR
000600	5F 46 52 41 4D 45 30 1F-00 09 74 65 78 74 5F 70	_FRAME0...text_P
000610	5F 46 52 41 4D 45 30 1F-00 09 74 65 78 74 5F 70	rep....row_txt..
000620	72 65 70 D6 19 00 07 72-6F 77 5F 74 78 74 FC 19	..LABEL_CELLS...
000630	00 0B 4C 41 42 45 4C 5F-43 45 4C 4C 53 8E 1F 00	.label_rc. ..BUI
000640	08 6C 61 62 65 6C 5F 72-63 02 20 00 07 42 55 49	LD_31...QUAD_97
000650	4C 44 5F, 33 6C 1E 00 0C-51 53 41 44 5F 39 37 5F	LOGO....REPORT_N
000660	4C 4F 47 4F 06 1E 00 0B-52 45 50 4F 52 54 5F 4D	ODE"...YNresponses
000670	4F 44 45 22 1A 00 0D 59-4E 72 2E 73 70 6F 6E 73	emsg....MV_CIR4&
000680	65 6D 73 67 00 00 00 07-4D 56 5E 43 4C 52 34 26	".....
000690	65 6D 73 67 00 00 00 A2-01 01 80 02 02 06 00	No standards fil
0006A0	22 00 2A 88 04 00 00 A2-01 01 80 02 02 06 00	e exists. can't
0006B0	4E 6F 20 73 74 61 6E 64-61 72 64 73 20 66 69 6C	save data..Press
0006C0	65 20 65 78 69 73 74 73-2C 20 63 51 6E 27 74 20	any key to cont
0006D0	65 20 65 78 69 73 74 73-2C 20 63 51 6E 27 74 20	inue..quad_97: C
0006E0	61 6E 27 74 20 77 72 69-74 65 20 63 6F 6E 74	an't write cell
0006F0	64 65 6E 73 69 74 79 20-64 61 74 61 20 74 6F 20	density data to
000700	73 74 61 6E 64 61 72 64-73 20 66 69 6C 65 2E 20	standards file.
000710	43 61 60 6C 20 42 56 49-2E 00 71 75 61 64 5F 39	Call BVI..quad_9
000720	37 3A 20 43 61 6E 27 74-20 77 72 68 74 65 20 63	7: Can't write c
000730	65 6C 6C 20 64 65 6E 73-65 74 75 20 64 61 74 61	ell density data
000740	20 74 6F 20 73 74 61 6E-64 61 72 64 73 20 66 69	to standards fi
000750	6C 6E 2E 20 43 61 6C 6C-20 42 56 49 2E 00 EB A0	le. Call BVI....
000760	67 02 02 D6 00 42 69 6F-6C 6F 67 69 63 61 6C 20	q....Biological
000770	56 65 73 69 6F 6E 20 2D-20 51 55 41 44 20 2D 20	Vision - QUAD -
000780	50 72 6F 62 65 20 64 69-66 65 65 72 65 6E 63 65	Probe difference
000790	20 61 6E 64 20 25 20 63-68 61 6E 67 65 00 71 75	and % change.out
0007A0	61 64 5F 39 37 3A 20 4E-5F 74 20 65 6E 6F 75 67	ad_97: Not enoug
0007B0	68 20 64 69 73 6B 20 73-70 61 63 65 20 74 6F 20	h disk space to
0007C0	72 75 6E 2E 00 71 75 61-64 5F 39 37 3A 20 4E 6F	run..quad_97: No
0007D0	74 20 65 6E 6F 75 67 68-20 72 61 6D 20 64 69 73	t enough ram dis
0007E0	6B 20 73 70 61 63 65 20-74 6F 20 72 75 6E 2E 00	k space to run..
0007F0	2D 2D 2D 2D 2D 20 50 52-4F 43 45 53 53 49 4E 47	----- PROCESSING
000800	20 49 4D 41 47 45 53 20-2D 2D 2D 2D 2D 00 43 61	IMAGES -----Ca
000810	6E 27 74 20 61 63 63 65-73 73 20 67 72 69 64 20	n't access grid
000820	64 61 74 61 2C 20 75 73-69 6E 67 20 64 65 66 61 75	data, using defau
000830	75 6C 74 73 00 58 73 69-6E 67 20 64 65 66 61 75	lt.Using defau
000840	6C 74 20 67 72 69 64 20-73 74 72 75 63 74 75 72	lt grid structur
000850	65 20 64 61 74 61 00 5C-62 76 69 5C 6D 69 6E 2E	e data.\bvi\min.
000860	70 69 63 00 5C 62 76 69-5C 68 6F 6C 64 2E 70 69	\pic.\bvi\hold.pi
000870	63 00 2D 2D 2D 2D 2D 20-43 41 4C 43 55 4C 41 54	c.----- CALCULAT
000880	49 4E 47 20 4F 50 54 49-43 41 4C 20 44 45 4E 53	ING OPTICAL DENS
000890	49 54 59 20 2D 2D 2D-2D 00 2D 2D 2D 2D 2D 20	ITY -----

EP 0 401 077 A2

	PROCESSING IMAGE	
0008A0	50 52 4F 43 45 53 53 49-4E 47 20 49 4D 41 47 45	S -----.Check pr
0008B0	53 20 2D 2D 2D 2D 2D 00-43 68 65 63 6B 20 70 72	inter status, pr
0008C0	69 6E 74 65 72 20 73 74-61 74 75 73 2C 20 70 72	ess I to ignore
0008D0	65 73 73 20 49 20 74 6F-20 69 67 6E 6F 72 65 20	it, C to continu
0008E0	69 74 2C 20 43 20 74 6F-20 63 6F 6E 74 69 6E 75	e..PRN.*** Can
0008F0	65 2E 00 50 52 4E 00 2A-2A 2A 2A 20 43 61 6E 20	not open device
000900	6E 6F 74 20 6F 70 65 6E-20 64 65 76 69 63 65 20	Line Printer ***
000910	4C 69 6E 65 20 50 72 69-6E 74 65 72 20 2A 2A 2A	*.%c.\bvi\hold.d
000920	2A 00 25 63 00 50 62 76-69 5C 68 6F 6C 64 2E 70	ic.\bvi\min.pic.
000930	69 63 00 5C 62 76 69 5C-6D 65 6E 2E 70 69 63 00	Check printer st
000940	43 68 65 63 6B 20 70 72-69 6E 74 65 72 20 73 74	atus, press 1 to
000950	61 74 75 73 2C 20 70 72-65 73 73 20 49 20 74 6F	ignore it, C to
000960	20 49 67 6E 6F 72 65 20-69 74 2C 30 43 20 74 6F	continue..PRN.*
000970	20 63 6F 6E 74 69 6E 75-65 2E 00 50 52 4E 00 2A	*** Can not open
000980	2A 2A 2A 20 43 61 6E 20-6E 6F 74 20 6F 70 65 6E	device Line Pri
000990	20 64 65 76 69 62 65 20-4C 69 6E 65 20 50 72 69	nter ***.%c.\bvi
0009A0	6E 74 65 72 20 2A 2A-2A 00 2E 63 00 5C 62 76	\min.pic.\bvi\h
0009B0	69 5C 6D 69 6E 2E 70 59-63 00 5C 62 76 69 5C 68	old.pic.0... .M
0009C0	6F 6C 64 2E 70 69 63 00-71 40 69 03 02 F8 03 4D	ove the mouse to
0009D0	6F 76 63 20 74 68 65 20-6D 6F 75 73 65 20 74 6F	position the wi
0009E0	20 70 6F 73 69 74 69 6F-6E 20 74 68 65 20 77 69	nadow into the im
0009F0	6E 64 6F 77 20 69 6E 74-6F 20 74 68 65 20 69 6D	ages. Surround a
000AA0	61 67 65 73 00 53 75 72-72 6F 75 6E 64 20 61 20	dot with the cur
000A10	64 6F 74 20 77 69 74 68-20 74 68 65 20 63 75 72	sors by moving t
000A20	73 6F 72 73 20 62 79 20-6D 6F 76 69 6E 67 20 74	he mouse.
000A30	68 65 20 6D 6F 75 73 65-00 20 20 20 20 20 20 20	MOUSE BUTTON
000A40	20 20 20 20 4D 4F 55 53-45 20 42 55 54 54 4F 4E	ACTION MENU
000A50	20 41 43 54 49 4F 4E 20-4D 45 4E 55 20 20 20 20	-----
000A60	20 20 20 20 20 20 00 CD-CD CD CD CD CD CD CD CD	-----
000A70	CD CD CD CD CD CB CD-CD CD CD CD CD CD CD CD	-----
000A80	CD CD CD CD CD CB CD-CD CD CD CD CD CD CD CD	-----
000A90	CD CD CD CD 00 20 20-4C 45 46 54 20 42 55 54	LEFT BUT
000AA0	54 4F 4E 20 20 BA 20 4D-49 44 44 4C 45 20 42 55	TTON . MIDDLE BU
000AB0	54 54 4F 4E 20 BA 20 52-49 47 48 54 20 42 55 54	TTON . RIGHT BUT
000AC0	54 4F 4E 20 00 20 20 C4-54 6F 67 67 6C 65 20 74	TTON . .Toggle t
000AD0	6F C4 20 20 BA 20 C4 C4-C4 48 6F 6C 64 20 74 6F	O. . .Hold to
000AE0	C4 C4 C4 20 BA 20 C4 C4-50 72 65 73 73 20 74 6F	... . Press to
000AF0	C4 C4 20 00 20 4D 4F 56-45 20 49 6D 61 67 65 73	... . MOVE Images
000B00	20 2F 20 BA 20 20 43 48-41 4E 47 45 20 53 49 5A	/ . CHANGE SIZ
000B10	45 20 20 BA 20 20 43 41-4C 43 55 4C 41 54 45 20	E . CALCULATE
000B20	20 20 00 20 4D 4F 56 45-20 43 75 72 73 6F 72 73	. MOVE Cursors
000B30	20 20 BA 20 20 6F 66-20 43 69 72 63 6C 65 20	. of Circle
000B40	20 20 BA 20 4F 44 20 69-6E 20 63 75 72 73 6F 72	. OD in cursor
000B50	20 00 CD CD CD CD CD-CD CD CD CD CD CD CD CD	-----
000B60	CD CA CD CD CD CD CD-CD D1 CD CD CD CD CD CD	-----
000B70	CD CA CD CD CD CD CD-CD CD CD CD CD CD CD	-----

EP 0 401 077 A2

000B80	00 20 20 20 20 20 4C 45-46 54 20 26 20 4D 49 44	LEFT & MID
000B90	44 4C 45 20 20 20 20-B3 20 20 20 20 4D 49 44	MID
000BA0	44 4C 45 20 26 20 52 49-47 48 54 20 20 20 20 00	DLE & RIGHT
000BB0	20 C4 C4 53 41 56 45 2F-50 52 49 4E 54 20 56 61	..SAVE/PRINT Va
000BC0	6C 75 65 73 C4 20 B3-20 20 20 20 C4 C4 4E	lues... . . . N
000BD0	6F 74 20 55 73 65 64 C4-C4 C4 20 20 20 20 00 CD	ot Used... . .
000BE0	CD CD CD CD CD CD CD-CD CD CD CD CD CD CD	.....
000BF0	CD CD CD CD CD CF CD-CD CD CD CD CD CD CD	.....
000C00	CD CD CD CD CD CD CD-CD CD CD CD CD CD CD	.....
000C10	20 20 20 20 20 20 20-20 4C 45 46 54 20 20 2e	LEFT &
000C20	20 20 4D 49 44 44 4C 45-20 20 2e 20 20 00 20 20 20	MIDDLE & RIG
000C30	48 54 20 20 20 20 20 20-20 20 20 20 00 20 20 20	HT Free
000C40	20 20 20 20 20 20 20 20-C4 C4 C4 C4 5C 72 65 73	s All Three to..
000C50	73 20 41 6C 6C 20 54 68-72 65 65 20 74 6F C4 C4	.
000C60	C4 20 20 20 20 20 20 20-20 20 20 00 20 20 20 20	EXIT Probe Diffe
000C70	45 58 49 54 20 50 72 6F-62 65 20 44 6F 65 66 65	rence & Percent
000CB0	72 65 6E 63 65 20 26 20-50 65 72 52 6E 74 20	Change
000C90	43 68 61 6E 67 65 20 20-20 20 00 CD C1 CD CD CD	.....
000CA0	CD CD CD CD CD CD CD-CD CD CD CD CD CD CD	.....
000CB0	CD CD CD CD CD CD CD-CD 00 20 20 31 2E 20 4D	1. H
000CC0	CD CD CD CD CD CD CD-CD 00 20 20 31 2E 20 4D	ove rectangle to
000CD0	6F 76 65 20 72 65 63 74-61 6E 67 6C 65 20 74 6F	select analysis
000CE0	20 73 65 6C 65 63 74 20-61 6E 61 6C 75 73 69 73	region.. 2. Le
000CF0	20 72 65 67 69 6F 6E 2E-00 20 20 32 2E 20 4C 65	ft Button to swi
000DD0	68 74 20 42 75 74 74 6F-6E 20 74 6F 20 73 77 69	tch to analysis
000D10	74 63 68 20 74 6F 20 61-6E 61 6C 79 73 69 73 20	mode. 3. Siz
000D20	6D 6F 64 65 2E 20 20 00-20 20 53 2E 20 53 69 7A	e and move curso
000D30	65 20 61 6E 64 20 6D 6F-76 65 20 63 75 6C 61 74 65 20	r and calculate
000D40	72 20 61 6E 64 20 63 61-6C 63 75 6C 61 74 65 20	DD.
000D50	4F 44 2E 20 20 20 00 CD-CD CD CD CD CD CD CD	.....
000D60	CD CD CD CD CD CD CD-CD CD CD CD CD CD CD	.....
000D70	CD CD CD CD CD CD CD-CD CD CD CD CD CD CD!.....!.
000D80	CD CD CD CD 3C A0 24 00-02 AD 07 CD 00 31 00 32	.3.4.5.6.7.8.9.1
000D90	00 33 00 34 00 35 00 36-00 37 00 38 00 39 00 31	0.11.12.....A
000DAO	30 00 31 31 00 31 32 00-B9 A0 14 00 02 FA 07 41	.B.C.D.E.F.G.H.X
000DB0	00 42 00 43 00 44 00 45-00 46 00 47 00 48 00 25	....*.Move Circles
000DC0	A0 2E 02 02 2A 08 4D 6F-76 65 20 43 69 72 63 6C	/ Radius = %2
000DD0	65 73 20 2F 20 52 61 64-69 75 73 20 3D 20 25 32	d.Size Circles /
000DE0	64 00 53 69 7A 65 20 43-69 72 63 6C 65 73 20 2F	Radius = %2d. Mo
000DF0	20 52 61 64 69 75 73 20-3D 20 25 32 64 00 4D 6F	ve Images.). . .
000E00	76 65 20 49 6D 61 67 65-73 00 29 00 20 C9 CD CD	.....
000E10	CD CD CD CD CD CD CD-CD CD D1 CD CD CD CD	.....
000E20	CD CD CD CD CD CD CD-CD D1 CD CD CD CD CD	.....
000E30	CD CD CD CD CD CD BB-00 20 BA 20 20 20 20 20	%6d
000E40	25 36 64 20 20 B3 20 20-20 20 25 36 64 20 20 20	Cell = %s%2e
000E50	B3 20 43 65 6C 6C 20 20-3D 20 25 73 25 32 73 20	

EP 0401077 A2

002B20	0E 9C C4 0B 55 05 C4 06-56 05 C4 00 56 05-53 A0	....V...V...V.S.
002B30	B6 03 01 42 11 9A 00 00-00 00 83 C4 08 8D 86 FC	...B.....
002B40	F6 89 46 D4 8C 56 D6 6A-0A 1E 68 93 02 16 50 9A	..F..V.j..h...P.
002B50	00 00 00 00 83 C4 0A 6A-01 8D 86 FC F6 16 50 FF	.....j.....P.
002B60	76 A2 9A 00 00 00 00 B3-C4 08 FF 76 A2 9A 00 00	V.....V...
002B70	00 00 83 C4 02 07 86 BA-F6 00 00 C7 86 4C F7 00	.....L..
002B80	00 68 FE 00 9A 00 00 00-00 83 C4 02 6A 00 6A 02	.h.....j.j.
002B90	9A 00 00 00 00 83 C4 04-6A 00 FF 76 BC 6A FF FF	.....j..V.j..
002BA0	76 BA 9A 00 00 00 00 B3-C4 08 FF 76 BC 6A 00 9A	V.....V.j..
002BB0	00 00 00 00 83 C4 04 1E-68 96 02 9A 00 00 00 00	.....h.....
002BC0	93 C4 04 FF 76 BA 6A 00-9A 00 00 00 00 83 C4 04	....V.j.....
002BD0	1E 58 A4 02 9A 00 00 00-00 83 C4 04 8B 86 EA F6	.h.....
002BE0	99 2B C2 D1 F8 40 89 86-D4 F6 8B 86 DC F6 99 2B	.+...@.....+
002BF0	C2 D1 FB 03 F1 00 89 86-BE F6 FF B6 A0 F2 9A 00	.....
002C00	00 00 00 83 C4 02 A1 0A-00 99 B9 04 00 F7 F9 8B	.....
002C10	D8 A1 04 00 95 2B C2 D1-F8 03 C1 89 46 D0 2B F6	....+....F.+.
002C20	A1 04 00 99 2B C2 D1 F8-F7 EE 03 46 D0 89 46 A0	....+....F..F.
002C30	56 0E EB 00 00 83 C4 02-8E D8 BE C2 57 8B FB B9	V.....W...
002C40	FF FF 33 C0 F2 AE F7 D1-49 5F BB F9 56 0E EB 00	..3....I..V...
002C50	00 83 C4 02 52 50 57 57-6A 01 68 FA 00 FF 76 A0	....RFWWj.n..V.
002C60	6A 01 6A 00 9A 00 00 00-00 83 C4 12 46 83 FE 0B	j.j.....F..
002C70	7E AE 89 BE 5A F7 89 B6-A6 F4 A1 0C 00 99 B9 04	~...Z.....
002C80	00 F7 F9 8B C8 A1 08 00-99 2B C2 D1 F8 03 C1 05+....+....
002C90	F7 00 89 46 C8 2B F6 A1-0C 00 99 2B C2 D1 F8 F7	...F.+....+....
002CA0	EE 03 46 C8 89 86 5C F7-56 0E EB 00 00 83 C4 02	..F..V.....
002CB0	8B D8 BE C2 57 8B FB B9-FF FF 33 C0 F2 AE F7 D1	....W....3...
002CC0	49 5F 8B F9 56 0E EB 00-00 83 C4 02 52 50 57 57	I..V.....RFWW
002CD0	6A C2 FF B6 5C F7 6A 06-6A 01 6A 00 9A 00 00 00	j..V.j.j.j.j....
002CE0	00 83 C4 12 46 83 FE 07-7E AD 89 BE 5A F7 89 B6	....F..~..Z...
002CF0	A6 F4 8B 86 BE F6 03 B6-D8 F6 50 8B 86 D4 F6 03	....P.....
002D00	86 E0 F6 50 FF B6 BE F6-FF B6 D4 F6 FF 76 BA 6A	...P.....V.j
002D10	00 9A 00 00 00 00 83 C4-0C FF B6 D2 F6 FF B6 DE	.....
002D20	F6 FF B6 DC F6 FF B6 EA-F6 0E EB 00 00 83 C4 08	.....
002D30	FF B6 A0 F2 9A 00 00 00-00 83 C4 02 E9 74 04 83	.....t..
002D40	7E A4 00 74 03 E9 FD 02-FF 76 BC 6A 01 9A 00 00	~..t....V.j...
002D50	00 00 83 C4 04 6B FF 00-9A 00 00 00 00 83 C4 02	....h.....
002D60	FF B6 A0 F2 9A 00 00 00-00 83 C4 02 FF B6 EC F6	.....
002D70	9A 00 00 00 00 83 C4 02-FF 76 BA 6A 00 9A 00 00	.....V.j...
002D80	00 00 83 C4 04 FF 76 BA-9A 00 00 00 00 83 C4 02	....V.....
002D90	6A 00 6A 02 9A 00 00 00-00 83 C4 04 6A 01 6A 00	j.j.....j.j..
002DA0	9A 00 00 00 00 83 C4 04-6A 00 9A 00 00 00 00 83	....j.....
002DB0	C4 02 2B F6 BB 9E 54 F7-C1 E3 02 8B 87 7C 03 8B	..+...T.....I..
002DC0	97 7E 03 89 86 84 F2 89-96 86 F2 8D 86 B0 F6 89	~.....
002DD0	86 BE F2 BC 96 90 F2 8D-86 C4 F6 89 86 9A F2 8C	.....
002DE0	96 9C F2 8D 46 F4 89 86-80 F2 BC 96 82 F2 8D 46	...F.....F.
002DF0	F4 E9 86 7C F2 BC 96 7E-F2 8B BE A0 F2 6A 01 68	...I...~....j.h

EP 0 401 077 A2

002E00	F0 00 6A 06 FF 76 BC FF-76 BC 9A 00 00 00 00 83	..j...v...v.....
002E10	C4 0A 57 9A 00 00 00 00-83 C4 02 C4 9E 8E F2 26	..W.....&....
002E20	BB 07 03 86 CC F6 50 C4-9E 9A F2 26 8B 07 03 86	.....P...&....
002E30	DA F6 50 FF B6 54 F7 FF-76 BC 6A 00 0E EB 00 00	..F..T..v..j....
002E40	B3 C4 0A 57 6A 00 9A 00-00 00 00 83 C4 04 6A 00	..Wj.....j..
002E50	6A 02 9A 00 00 00 00 B3-C4 04 FF B6 EC F6 9A 00	j.....
002E60	00 00 00 83 C4 02 57 FF-76 BC FF 76 BA 9A 00 00	.....W.v...v....
002E70	00 00 83 C4 06 89 46 AE-89 56 B0 83 FE 02 7D 29	.....F..v....10
002E80	89 96 76 F2 89 86 74 F2-C7 86 7B F2 00 00 C7 B6	..v...t...x....
002E90	7A F2 00 00 9E DF AE 74-F2 9B 08 4E AB 9A 00 00	z.....v...N....
002EA0	00 00 C4 9E 80 F2-E8 18-90 FF B6 86 F1 0F B6 84	.....
002EB0	F2 FF 76 B0 FF 76 AE 9A-00 00 00 00 04 7E 7C F2	..v..v.....
002EC0	26 87 07 83 86 8E F2 02-83 86 FA F1 02 83 86 B0	6.....
002ED0	F2 02 83 86 7C F2 02 46-83 FE 03 7F 03 E9 1D FF	....1..F.....
002EE0	89 B6 A6 F4 8B 46 FA 06-9C C8 00 CF B3 56 0A CF	....F.....V..
002EF0	69 56 51 C7 64 56 05 C7-5F B6 05 CF 3B 56 36 CF	iVB..dV...v..,SV6..
002FO0	24 56 55 CF 1E 56 3E CF-12 56 11 87 09 56 0F CE	*VU..V3..V...V..
002F10	DF 56 55 CE D6 56 56 C6-9C 9D CE 54 56 07 08 49 58	.VU..VV.....vv
002F20	53 CE 60 56 41 CE 60 56-3E CE 54 56 07 08 49 58	5..IVA..V..,TV..1V
002F30	3E CE 3C 56 55 CE 30 56-32 CE 24 56 34 CE 19 56	>..VU..OV2..\$V4..V
002F40	3E CE 00 56 55 B5 F6 56-44 CD DD 56 24 CD AB 55	>..VU..VD..,VE..V
002F50	21 85 92 56 2F 85 76 56-2F C5 63 9F C5 51 9F C5	1..V7..VV..c..D..
002F60	46 9F CD 30 56 21 85 1A-56 2D 84 FE 56 20 C4 EC	F..,OV1..V+..V-..
002F70	9F C4 DD 9F C4 D2 9F CC-CA 56 55 CC A0 56 4E C4	.....VU..VN..
002FB0	9D 9D CC 94 56 3E CC 87-56 4E CA 84 9D CC 7B 56	....V2..VN...CV
002F90	3E CC 6E 56 24 CC 5C 56-3E CC 50 56 55 CC 39 B6	>.MV\$.AV>.PVU..9V
002FA0	1F CC 2E 56 3F CC 1B 56-9E C4 16 9D CC 01 56 3F	...V2..V.....V?
002FB0	11 A0 B4 03 01 F4 14 2B-46 FB 89 46 FC 8B 46 FA	.....+F..,F..,F..
002FC0	38 46 FB 7E 03 8B 46 FB-89 8B 52 F7 0B CO 75 06	:F..,V..,F..,R..,U..
002FD0	C7 86 52 F7 01 00 6B 46-FC 64 99 F7 BE 52 F7 B9	..R...kF..d...R..
002FE0	46 FE 6A 00 9A 00 00 00-00 83 C4 02 FF B6 EC F6	F..j.....
002FF0	9A 00 00 00 00 83 C4 02-6A 01 68 FE 00 6A 06 FF	.....j..h..j..
003000	76 BC FF 76 BC 9A 00 00-00 00 83 C4 0A 6A 01 FF	v...v.....3..
003010	76 BC 6A FF FF 76 BA 9A-00 00 00 00 83 C4 08 6A	v..j..v.....j..
003020	01 6A 01 9A 00 00 00 00-83 C4 04 6A 09 9A 00 00	..j.....j..
003030	00 00 83 C4 02 FF B6 A0-F2 9A 00 00 00 00 83 C4	.....
003040	02 C7 86 BA F6 01 00 FF-B6 4C F7 8D 45 DB 16 50	.....L..F..,P
003050	BD 86 FC F6 16 50 9B D9-86 F8 F6 83 EC 08 8B DC	....P.....
003060	9B 36 DD 1F 9B D9 66 4E-F7 83 EC 08 8B DC 9B 36	.6.....N.....6
003070	DD 1F 90 9B FF 36 0C 00-FF 36 0A 00 FF B6 54 F7	....6..6....T..
003080	FF B6 CC F6 FF B6 DA F6-8D 46 F4 16 50 0E EB 00	.....F..,P..
003090	00 83 C4 28 0E EB 00 00-FF 76 B6 FF 76 CC FF 76	...G.....v...v...v
0030A0	CA FF 76 D2 FF B6 A4 F4-FF 76 B8 FF 36 0C 00 FF	..v.....v..6...
0030B0	36 0A 00 0E EB 00 00 83-C4 10 6B FF 00 9A 00 00	6.....h.....
0030C0	00 00 83 C4 02 C7 B6 C2-F6 00 00 FF B6 54 F7 6A	.....T..j..
0030D0	00 FF 76 A4 0E E8 00 00-83 C4 06 6A 00 6A 02 9A	..v.....j..j..

EP 0 401 077 A2

0030E0	00 00 00 00 B3 C4 04 FF-B6 A0 F2 9A 00 00 00 00 00	.....T..
0030F0	B3 C4 02 FF B6 CC F6 FF-B6 DA F6 FF B6 54 F7 FF	v.j.....j...~t..e..F
003100	76 BA 6A 00 0E E8 00 00-B3 C4 0A 6A 00 9A 00 00	.....~t..e..F
003110	00 00 B3 C4 02 83 7E A4-01 74 03 E9 65 01 C7 46	....j.....u...
003120	A4 01 00 E9 5D 01 90 83-BE BA F6 00 75 03 E9 D5	....j.....u...
003130	F3 9B DF 46 FA 83 EC 04-8B DC 9B 36 D9 1F 9B DF	...F.....6...
003140	46 FB 83 EC 04 88 DC 9B-36 D9 1F 90 9B FF B6 CC	F.....6.....
003150	F6 FF B6 DA F6 0E E8 00-00 B3 C4 0C B0 3E 04 00>..
003160	00 74 1B 7A 00 00 00 00-0B C0 75 0F 6A 49 6A 43	.t.....u.jIjC
003170	1E 6B B1 02 0E E8 00 00-B3 C4 08 B0 3E 04 00 00	.h.....~...
003180	75 03 E9 E0 00 C7 B6 A6-F4 00 00 BD 46 DB 8E D8	u.....F...
003190	BB FF 8C D0 BE C0 E9 FF-FF 33 C0 F2 AE F7 D1 49	.....S....I
0031A0	74 3B 6B 06 7A 03 16 BB-F8 BB B6 A6 F4 8A 42 DB	t;k.z.....B.
0031B0	8B DE 03 DF 03 DD B6 89-87 60 F7 46 8B C6 SD 4E	....6...F...N
0031C0	D8 BB D9 BB D0 57 BB FB-8C D0 B9 FF FF 33 C0 F2	....W.....S..
0031D0	AE F7 D1 49 5F 3B D1 72-D4 89 B6 A6 F4 FF 06 7A	...I...P.....Z
0031E0	03 6A 01 1E 6B EC 02 RA-00 00 00 00 B3 C4 06 89	.j..h.....
0031F0	46 A2 40 75 10 1E 6B F0-02 6A 01 9A 00 00 00 00	F.@u..h..j.....
003200	B3 C4 06 EB 55 8D 86 FC-F6 BB D8 8B FB 8C D0 8E	....U.....
003210	C0 B9 FF FF 33 C0 F2 AE-F7 D1 49 51 8D 86 FC F6	....3....10...
003220	16 50 FF 76 A2 9A 00 00-00 00 83 C4 08 8D 86 FC	.P.v.....
003230	F6 B9 46 D4 8C 56 B6 6A-0A 1E 68 1B 03 16 50 9A	..F..V.j..h..P.
003240	00 00 00 00 B3 C4 0A 6A-01 8D 86 FC F6 16 50 FF	....j.....P.
003250	76 A2 9A 00 00 00 00 B3-C4 08 FF 76 A2 9A 00 00	v.....Y...
003260	00 00 B3 C4 02 C7 B6 BA-F6 00 00 C7 86 4C F7 01	.....L..
003270	00 6A 01 0E E9 00 00 B3-C4 02 E9 89 F2 C7 85 D6	.j.....
003280	F6 04 00 B3 BE D6 F6 03-7F 03 E9 8E F2 A1 00 00	.....
003290	0B 06 02 00 74 10 FF 36-02 00 FF 36 00 00 9A 00	....t..6...6...
0032A0	00 00 00 B3 C4 04 1E 68-1E 03 9A 00 00 00 00 B3	....h.....
0032B0	C4 04 1E 6B 2B 03 9A 00-00 00 00 B3 C4 04 9A 00	...ht.....
0032C0	00 00 00 1F 5E 5F D9 CB-90 CB 00 00 00 1E BB 00^.....
0032D0	00 BE DB B3 7E 06 00 75-06 1E 68 F8 03 EB 04 1E	....~..u..h....
0032E0	68 2E 04 6A 01 9A 00 00-00 00 B3 C4 06 9A 00 00	h..j.....
0032F0	00 00 1E 6B 62 04 9A 00-00 00 00 B3 C4 04 BB 00	...hb.....
003300	00 BA 00 00 52 50 1E 68-90 04 6A 00 6A 01 9A 00	....RP.h..j..j..
003310	00 00 00 B3 C4 0C BB 00-00 BA 00 00 52 50 1E 6B	.....RP.h..j..j..
003320	BF 04 6A 00 6A 02 9A 00-00 00 00 B3 C4 0C BB 00	..j..j.....
003330	00 BA 00 00 52 50 1E 68-EE 04 6A 00 6A 03 9A 00	....RP.h..j..j..
003340	00 00 00 B3 C4 0C BB 00-00 BA 00 00 52 50 1E 68	.....RP.h..j..j..
003350	1D 05 6A 00 6A 04 9A 00-00 00 00 B3 C4 0C BB 00	..j..j.....
003360	00 BA 00 00 52 50 1E 5A-9C 43 01 CB AB 56 10 C7	....RP.Z.C...V..
003370	AB 56 10 CF A0 56 38 C7-99 9D CB 93 56 10 C7 90	.V...V8....V...
003380	56 10 CF 38 56 38 C7 81-9D CB 7B 56 10 C7 78 56	V...V8...CV..xV
003390	10 CF 70 56 38 C7 69 9D-CB 63 56 10 C7 60 56 10	..PV8.i..CV..`V..
0033A0	CF 58 56 38 C7 51 9D CB-4B 56 10 C7 48 56 10 CF	.XV8.Q..KV..HV..
0033B0	40 56 1E C7 3D 9D CF 37-56 15 CF 2F 56 25 C7 2A	@V...=..7V.../V%..*

EP 0401 077 A2

0033D0	9D C7 24 9D CB 18 9D CF-08 56 47 CF 00 56 14 C6 ..\$..... VG..V..
0033D0	FD 9D CE F4 56 14 C6 F1-9D CE E8 56 18 C6 E5 9D ...V.....V....
0033E0	C6 E1 9D C6 DB 9D C6 D7-9D 86 BE 56 45 CE A7 56 .....VE..V
0033F0	1F CE 9C 56 3F CE 89 56-0E C6 84 9D CE 6F 56 3F ...V?..V....BV?
003400	CE 45 56 25 C6 40 9D CE-31 56 30 C6 2E 9D C6 2B .EVZ.@..1VO....(
003410	9D C5 ED 9D C5 C6 9D 85-BF 56 4F C5 BB 9D CD AD .....VD....
003420	56 42 C5 A7 9D SS A0 56-17 C5 74 56 06 C5 91 56 VB.....V...V...V
003430	02 C5 90 56 03 C5 87 56-05 C5 84 56 02 C5 83 56 ...V...V...V...V...V
003440	03 C5 7A 56 05 C5 57 56-34 83 4F 56 34 CD 35 56 ..zV..WV4.DVT.SV
003450	55 C5 29 56 3E 85 1F 56-44 CD 27 56 34 84 FE 56 U.VV..VJ..VA..V
003460	3A C4 FA 9F C4 F6 9F 84-DF 56 3E 84 D5 56 13 C4 .....VB..V..V..V..V
003470	C3 9F C4 BF 9F C4 BE 56-06 C4 56 56 02 C4 B7 56 ...V...V...V...V...V
003480	03 C4 AD 56 05 C4 AA 56-02 C4 46 56 03 C4 9F 56 ...VU.WV4.MVA.eV
003490	05 CC 83 56 55 CC 77 56-34 CC 65 56 41 CC 61 56 \$OVN;VU..V8..
0034A0	24 CC 4F 56 36 CC 3A 56-55 CC 2E 56 53 E4 A0 1D ....HL.j...J....
0034B0	03 01 A4 18 68 4C 05 6A-00 6A 05 9A 00 00 00 00 .....RP.hC.J
0034C0	83 C4 0C BB 00 00 BA 00-00 52 50 1E 68 7B 05 6A ..j.....
0034D0	00 6A 0E 9A 00 00 00 00-83 C4 0C BB 00 00 BA 00 ..RF.h..j...J....
0034E0	00 52 50 1E 68 8A 05 6A-00 6A 07 9A 00 00 00 00 .....RP.h..J
0034F0	83 C4 0C BB 00 00 BA 00-00 52 50 1E 68 D9 05 6A ..j.....
003500	00 6A 08 9A 00 00 00 00-83 C4 0C BB 00 00 BA 00 ..RF.h..j...J....
003510	00 52 50 1E 68 08 05 6A-00 6A 09 9A 00 00 00 00 .....RP.h7.J
003520	83 C4 0C BB 00 00 BA 00-00 52 50 1E 68 37 06 6A ..j.....
003530	00 6A 0A 9A 00 00 00 00-83 C4 0C BB 00 00 BA 00 ..RF.hf..j...J....
003540	00 E2 50 1E 68 66 06 6A-00 6A 0B 9A 00 00 00 00 .....RP.h..J
003550	83 C4 0C BB 00 00 BA 00-00 52 50 1E 68 95 06 6A ..j.....
003560	00 6A 0C 9A 00 00 00 00-83 C4 0C BB 00 00 BA 00 ..RF.h..j...J....
003570	00 52 50 1E 68 C4 0c 6A-00 6A 0D 9A 00 00 00 00 .....RP.h..J
003580	83 C4 0C BB 00 00 BA 00-00 52 50 1E 68 F3 06 6A ..j.....
003590	00 6A 0E 9A 00 00 00 00-83 C4 0C BB 00 00 BA 00 ..RF.h..j...J....
0035A0	00 52 50 1E 68 22 07 6A-00 6A 0F 9A 00 00 00 00 .....RP.hQ.J
0035B0	83 C4 0C BB 00 00 BA 00-00 52 50 1E 68 51 07 6A ..j.....
0035C0	00 6A 10 9A 00 00 00 00-83 C4 0C BB 00 00 BA 00 ..RF.h..j...J....
0035D0	00 52 50 1E 68 80 07 6A-00 6A 11 9A 00 00 00 00 ..j.....
0035E0	83 C4 0C 1F C9 CB C8 00-00 00 1E BB 00 00 8E DB ..~.~.F....~..
0035F0	83 7E 06 0B 7E 05 C7 46-06 0B 00 8B 5E 06 C1 E3 ..~.~.F....~..
003600	02 BB B7 CA 07 BB 97 CC-07 1F C9 CB C8 00 00 00 ..~.~.F....~..
003610	1E BB 00 00 8E DB B3 7E-06 07 7E 05 C7 46 06 07 ..~.~.F....~..
003620	00 BB 5E 06 C1 E3 02 BB-87 0A 08 BB 97 0C 08 1F ...F.....F..
003630	C9 CB C8 50 00 00 1E BB-00 00 8E DB BB 46 06 0B ..t.=..t8.G.~..u.
003640	C0 74 07 3D 01 00 74 38-E8 47 B3 7E 08 00 75 14 ..v..h*..F..P...
003650	FF 76 0A 1E 68 2A 08 BD-46 B0 16 50 9A 00 00 00 ..~.~.u'.v..hF
003660	00 83 C4 0A 83 7E 08 01-75 27 FF 76 0A 1E 68 46 ..F..F.....
003670	08 8D 46 B0 16 50 9A 00-00 00 00 83 C4 0A EB 11 ..hb..F..F.....
003680	1E 68 62 08 BD 46 B0 16-50 9A 00 00 00 00 83 C4 06 ..F..Pj.....
003690	08 BB 46 B0 16 50 6A 01-9A 00 00 00 00 83 C4 06 ..

EP 0401 077 A2

0036A0	1F C9 CB 90 C6-12 02 00-57 56 1E B8 00 00 WE D8	.....WV.....
0036B0	B8 6E 0B 89 46 F4 8C 5E-F6 9B DF 46 0A 9B DC 46	.n..F..^...F...F
0036C0	14 9A 00 00 00 00 89 46-F0 9B DF 46 0C 9B DC 46	.....F...F...F
0036D0	1C 9A 00 00 00 00 89 86-0E FE 2B 06 08 00 99 F7+....
0036E0	7E 12 05 02 00 89 46 FC-BB 46 F0 2B 06 06 00 99	~....F..F.+....
0036F0	F7 7E 10 05 03 00 89 46-F8 9B DF 46 0A 9B DF 46	~....F...F...F
003700	10 9B DE F9 9B DC 46 14-9B D9 9E 08 FE 9B DF 46	.....F.....F
003710	0C 9B DF 46 12 9B DE F9-9B DC 46 1C 9B D9 9E 00	...F.....F....
003720	FE 9B D9 86 08 FE 9A 00-00 00 00 89 86 04 FE 9B	.....
003730	D9 86 00 FE 94 00 00 00-00 89 86 FE FD 1E 68 70	.....h.....hp
003740	08 8D 86 10 FE 1e 50 9A-00 00 00 00 B3 C4 0B FF	.....P.....
003750	B6 04 FE 0E EB 00 00 B3-C4 02 52 50 FF B6 FE FD	.....RP....
003760	0E E8 00 00 B3 C4 02 52-50 C4 5E 06 26 FF 77 06	.....RP..&..W.
003770	26 FF 77 04 1E 68 9D 08-8D 86 60 FE 16 50 9A 00	&..W..h....P..
003780	00 09 00 B3 C4 14 FF 76-0E 1E 68 C8 08 8D 86 B0	.....v..h....
003790	FE 16 50 9A 00 00 00 00-83 C4 0A FF 76 F0 C4 5E	..F.....v..
0037A0	06 26 FF 77 0A 26 FF 77-08 1E 68 F3 08 8D 86 00	..&..W..&..h....
0037B0	FF 16 50 9A 00 00 00 00-83 C4 0E FF B6 0E FE C4	..P.....
0037C0	5E 06 26 FF 77 02 26 FF-37 1E 68 1B 09 A8 9C 6D	..&..W..&..7..h....
0037D0	01 C7 17 9D CF 00 56 0E-C6 F7 9D CE E0 56 0E C6	.....V.....V..
0037E0	D7 9D CE CB 56 0E C6 C2-9D 86 AE 56 2F 86 A1 56	..V.....VQ..CV.
0037F0	ZD CE 94 56 0E C6 8B 9D-CE 81 56 51 C6 7B 56 05	.sVQ..mV..hv..dV.
003800	CE 73 56 51 C6 6B 56 05-C6 68 56 05 C6 64 56 05	.aV..jV..VV..TV.
003810	C6 61 56 05 C6 5B 56 05-C6 59 56 05 C6 54 56 05	.PV..MV..IV..EV.
003820	C6 50 56 05 C6 4D 56 05-C6 49 56 05 C6 45 56 05	.9..(....VQ..V..
003830	C6 39 9F C6 28 9F CE 1E-56 51 C6 19 56 05 C6 15	V...VQ..V...V..
003840	56 05 CE 0E 56 51 C6 09-56 05 C6 05 56 05 C5 FD	.....VX..V....
003850	9D C9 F8 9D CD E5 56 25-CD D6 56 0E C5 CE 9D CD	..V.....V.....
003860	C3 56 0E C5 BB 9D CD A9-56 0E C5 A1 9D C9 84 9D	.y..u..^..S..O..
003870	C5 79 9D C5 75 9D C9 5E-9D C5 53 9D C5 4F 9D C9	B..(VB..!....V...V
003880	3B 9D CD 28 56 38 C5 21-9D C9 1B 56 10 C5 1B 56	...VB....V...V..
003890	10 CC 10 56 38 C5 09 9D-C9 03 56 10 C5 00 56 10	..VB....V...V..
0038A0	CC F8 56 38 C4 F1 9D C8-E8 56 10 C4 E8 56 10 CC	.VB....V...V..
0038B0	E0 56 38 C4 D9 9D C8 D3-56 10 C4 D0 56 10 CC C8	V8.....V...V...V
0038C0	56 38 C4 C1 9D C8 BB 56-10 C4-B8 56 10 CC B0 56	B.....V...V...V8.
0038D0	38 C4 A9 9D C8 A3 56 10-C4 A0 56 10 CC 98 56 38	.....V...V...V8.
0038E0	C4 91 9D C8 8B 56 10 C4-BB 56 10 CC B0 56 38 C4	y..sV..pv..hvB.a
0038F0	79 9D C8 73 56 10 C4 70-56 10 CC 68 56 38 C4 61	..IV..XV..PV8.I.
003900	9D C8 5B 56 10 C4 58 56-10 CC 50 56 38 C4 49 9D	.CV..@V..8V8.1..
003910	C8 43 56 10 C4 40 56 10-CC 38 56 38 C4 31 9D C8	+V..(V.. V8....
003920	2B 56 10 C4 28 56 10 CC-20 56 3B C4 19 9D C8 13	V...V...V8....
003930	56 10 C4 10 56 10 CC 08-56 3B C4 01 9D B1 A0 B5	.....P..P....
003940	03 01 BD 1B 8D 86 50 FF-16 50 9A 00 00 00 00 B3	...hB..F..P....
003950	C4 0E 1E 68 42 09 8D 46-A0 16 50 9A 00 00 00 00+....
003960	B3 C4 08 2B F6 8D 86 10-FE B9 86 F6 FD BC 96 FB	.....D.F...
003970	FD FF B6 F8 FD FF B6 F6-FD 8D 44 0C 50 9A 00 00	.....

EP 0 401 077 A2

003980	00 00 83 C4 06 83 86 F6-FD 50 46 83 FE 06-7C E1	.....FF...I.
003990	89 B6 06 FE 80 3E 04 00-00 74 18 9A 00 00 00 00	....>...t.....
0039A0	08 C0 75 0F 6A 49 6A 43-1E 68 6F 09 0E E8 00 00	..u.jIjC.ho....
0039B0	83 C4 08 80 3E 04 00 00-75 03 E9 6C 01 6A 01 1E	....>...u..l.j..
0039C0	68 AA 09 9A 00 00 00 00-B3 C4 06 89 86 0C FE 40	h.....@
0039D0	75 11 1E 68 AE 09 6A 01-9A 00 00 00 00 00 B3 C4 06	u..h..j.....
0039E0	E9 3A 01 83 3E 6E 0A 00-75 03 E9 9E 00 1E 68 D9	....>...u....h.
0039F0	09 FF 76 26 FF 76 24 9A-00 00 00 00 00 B3 C4 08 89	..v&.v\$.....
003A00	46 F2 1E 68 E6 09 03 46-24 8B 56 26 52 50 9A 00	F...n...F\$..V&RP..
003A10	00 00 00 83 C4 08 01 46-F2 1E 68 F2 09 8B 46 F2	.....F..h...F.
003A20	03 46 24 8B 56 26 52 50-9A 00 00 00 00 B3 C4 08	.F\$..V&RP.....
003A30	01 46 F2 1E 68 05 0A 8B-46 F2 03 46 24 8B 56 26	.F..h...F..F\$..V\$
003A40	52 50 9A 00 00 00 00 83-C4 08 01 46 F2 1E 68 15	RP.....F..h..
003A50	04 8B 46 F2 03 46 24 8B-56 26 52 50 9A 00 00 00	..F..F\$..V&RP... ....F...V\$...3..
003A60	00 83 C4 08 01 46 F2 C4-7E 24 B9 FF FF 33 C0 F2	...IE..V\$.....
003A70	AE F7 D1 49 51 06 FF 7e-24 FF B6 0C FE 9A 00 00	....n....t
003A80	00 00 83 C4 08 C7 06 8E-0A 00 00 83 7E 2C 00 74	...1...&..W..&..W.
003A90	04 FF 06 6C 0A C4 5E 0e-2e FF 77 06 26 FF 77 08	&..W..&..W.....
003AA0	26 FF 77 06 26 FF 77 04-FF B6 FE FD 06 EB 00 00	...RP.....
003AB0	83 C4 02 52 50 FF B6 04-FE 0E EB 00 00 83 C4 02	RP..V...V...\$1..5\$.
003AC0	52 50 FF 76 F6 FF 76 F4-FF 36 6C 0A 1E 68 24 0A	.v&.v\$.....
003AD0	FF 76 26 FF 76 24 9A 00-00 00 00 B3 C4 1E C4 5E	.&..W..&..W..&..W..&..W
003AE0	06 26 FF 77 0A 26 FF 77-08 26 FF 77 06 26 FF 77	.....RP..
003AF0	04 FF B6 FE FD 0E EB 00-00 83 C4 02 52 50 FF B6	.....RP..hB..
003B00	04 FE 0E EB 06 00 83 C4-02 52 50 1E 58 42 0A FF	V*..V(.....
003B10	76 2A FF 76 26 9A 00 00-00 00 83 C4 18 FF B6 0C	.....F..F..
003B20	FE 9A 00 00 00 00 83 C4-02 8B 46 0C 03 46 0E 05	...F.=..^..F.+F..
003B30	10 00 B9 46 FA 3D EE 00-7E 0C BB 46 0C 2B 46 0E	...F..F..F.=..^
003B40	2D 06 00 B9 46 FA 8B 46-0A B9 46 FE 3D 0C 00 7D	..F...^...^...F.
003B50	05 C7 46 FE 0C 00 01 7E-FE F4 00 7E 05 C7 46 FE	..j..s.....j..
003B60	F4 00 6A 00 6A 01 9A 00-00 00 00 B3 C4 04 6A 00	.....F
003B70	9A 00 00 00 00 83 C4 02-C7 86 06 FE 06 00 8B 46	..V.....
003B80	06 8B 56 08 05 04 00 89-86 F6 FD 89 96 F6 FD BE	d..^..T..
003B90	64 0A BF 5C 0A C7 86 F0-FD 54 0A C7 86 EE FD 04&.....
003BA0	00 C4 9E F6 FD 26 8B 07-99 89 86 FA FD 89 96 FC	..RPj.j..4j...F..
003BB0	FD 52 50 6A 01 6A 01 FF-34 6A 00 8B 05 03 46 FA	F.....F.Pj.j..
003BC0	50 8B 9E F0 FD 8B 07 03-46 FE 50 5A 01 6A 00 9A	.....u..^..
003BD0	00 00 00 00 83 C4 14 83-86 F6 FD 02 83 C6 02 B3	.....F..
003BE0	C7 02 83 86 F0 FD 02 FF-8E EE FD 75 B4 1F 5E 5F	....j..j.....j..j..
003BF0	C9 CB 90 C8 0C 00 00 1E-BB 00 00 8E D8 C7 46 FD	..F...F...F..
003C00	01 01 C7 46 F8 F1 00 C7-46 FA 00 00 C7 46 F4 00	..F...F...h....
003C10	00 C7 46 F6 01 01 C7 46-FE 00 00 68 FE 00 9A 00	....j..j.....j..j..
003C20	00 00 00 83 C4 02 6A 00-6A 02 9A 00 00 00 00 B3	..j.....j..j..
003C30	C4 04 6A 00 9A 00 00 00-00 83 C4 02 6A 01 6A 00	j..j..j..v..v..v..v..
003C40	6A 00 6A 00 6A 00 FF 76-0C FF 76 0A FF 76 08 FF	v..j.....j..
003C50	76 06 6A 02 9A 00 00 00-00 B3 C4 14 6A 00 9A 00	

EP 0 401 077 A2

003C60	00 00 00 83 C4 02 6A 01-6A 00 6A 00 68 01 01 6A	.....j..j..j..h..j
003C70	00 FF 76 0C FF 76 0A FF-76 08 FF 76 06 6A 03 9A	..v...v...v..v..j..
003C80	00 00 00 00 83 C4 14 6A-00 9A 00 00 00 00 83 C4	.....j.....
003C90	02 6A 01 6A 00 68 F1 00-68 01 01 6A 00 FF 76 0C	.j..j..h..h..j..v..
003CA0	FF 76 0A FF 76 08 FF 76-06 6A 01 9A 00 00 00 00	.v..v..v..j.....
003CBO	83 C4 14 1F 09 CB 90 1E-BB 00 00 8E DB 6A 00 6A	.....j.....j..j
003CC0	01 9A 00 00 00 00 83 C4-04 6A 00 9A 00 00 00 00	.....j.....
003CDO	83 C4 02 6A 00 9A 00 00-00 00 83 C4 02 68 EF 00	...j.....h..
003CEO	6A 00 9A 00 00 00 00 83-C4 04 68 F0 00 68 FF 01	j.....h..h..
003CF0	9A 00 00 00 00 5A 9C D3-00 CF AD 56 49 CF 9F 56	....Z....VI..V
003D00	48 CF 92 56 32 CF 89 56-1D CF 7E 56 3E CB 75 9D	H..V2..V..~V..u..
003D10	CF 68 56 2B CF 46 56 53-CF 3C 56 2B CF 1B 56 53	.nV+.FVS. <v+..v6< td=""></v+..v6<>
003D20	CF 11 56 2B CE F1 56 53-CE E7 56 3E CE DB 56 55	.V+..V6..V>..VU
003D30	CA B5 9D CE BC 56 33 C6-55 9D C6 4F 9D C6 4C 9D	....V3.U..O..L..
003D40	CE 2D 56 1D CE 23 56 3E-CD DE 56 1F CD 02 56 0E	.~V..#V2..V..V..
003D50	C5 C9 9D 95 C0 56 2D B5-B3 56 2F CD 93 56 0E C5	....V-..V//..V..
003D60	8A 7D C5 86 7D 85 77 56-2D 85 6A 56 2F C5 4F 9D	....WV-.JV..D..
003D70	C5 43 9D CD 3A 56 3F CD-19 56 0E C5 0B 9D CC FF	.C..:V7..V....
003D80	B6 0E C4 F1 9D CC E5 56-0E C4 D7 9D CC DB 56 0E	V.....V.....V..
003D90	C4 C0 9D CC B4 56 0E C4-AB 9D C4 A1 9D CC 95 56	....V..V.....V..
003DAO	25 C4 90 9D CC B0 56 30-C4 7D 9D C4 71 9D 84 6A	....VO.3..O..S
003DB0	B6 4F C4 66 9D CC 58 56-42 C4 52 9D CC 3A 56 22	VO.f..AVB.R..:V"
003DC0	CC 18 56 0E C4 10 9D CC-07 56 0E BA A0 B6 03 01	..V.....V.....
003DD0	6E 1F B3 C4 04 68 DF 01-68 FF 00 9A 00 00 00 00	n...h..h.....
003DE0	82 C4 04 6A 00 68 00 01-9A 00 00 00 00 83 C4 04	...j..n.....
003DF0	1F C6 1E B8 00 60 8E DB-1E 68 70 0A 6A 07 6A 07	....h..h..j..j..
003E00	6A 01 6A 0E 6A 03 6A 01-6A 00 9A 00 00 00 00 83	j..j..j..j..j..j..
003E10	C4 12 1E 68 78 0A 6A 04-6A 0A 6A 92 6A 0E 68 FD	...h..j..j..j..j..h..
003E20	01 6A 01 6A 00 9A 00 00-00 00 83 C4 12 1E 68 B3	.j..j..j..h..j..j..j..
003E30	0A 6A 0A 6A 0A 6A 01 68-FF 00 6A 03 6A 01 6A 00	....h..j..j..j..j..
003E40	9A 00 00 00 00 83 C4 12-1E 68 8E 0A 6A 08 6A 08	....h..h..j..j..j..
003E50	6A 02 68 FF 00 68 FD 01-6A 01 6A 00 9A 00 00 00	j..h..h..j..j..j..
003E60	00 B3 C4 12 1F CB C8 12-00 00 57 56 1E B8 00 00	....W.....WV....
003E70	8E DB BB 46 0A B9 46 FE-BB 46 0E B9 46 F2 C7 46	...F..F..F..F..F..F
003E80	F4 00 00 BB 46 10 39 46-F2 7F 6A BB 46 FE B9 46	...F..9F..j.F..F
003E90	F0 BB 46 10 2B 46 0E 40-B9 46 EE 01 46 F4 8B 76	..F.+F..@.F..F..V
003EA0	F2 BB 46 F0 B9 46 FA 56-0E EB 00 00 83 C4 02 BB	..F..F..V.....
003EB0	D8 8E C2 57 BB FB B9 FF-FF 33 C0 F2 AE F7 D1 49	...W....3....I
003EC0	5F BB F9 56 0E EB 00 00-83 C4 02 52 50 57 57 6A	...V.....RFWWJ
003ED0	01 68 F3 00 FF 76 FA 6A-01 6A 00 9A 00 00 00 00	.h..v..j..j..j..
003EE0	83 C4 12 46 BB 46 06 01-46 F0 3B 76 10 7E B2 B9	...F..F..F.;v..~..
003EF0	7E F8 B9 76 F2 8B 46 0A-B0 C4 01 B9 46 FE BB 46	~..v..F.....F..F
003FO0	0E B9 46 F2 C7 46 F4 00-00 BB 46 10 39 46 F2 7F	..F..F....F..9F..
003F10	6A BB 46 FE B9 46 EE BB-46 10 2B 46 0E 40 B9 46	j..F..F..F.+F..@..F
003F20	F0 01 46 F4 BB 76 F2 BB-46 EE B9 46 FA 56 0E EB	..F..v..F..F..V..
003F30	90 00 B3 C4 02 BB DB 8E-C2 57 8B FB B9 FF FF 33	....W....3....

EP 0401 077 A2

003F40	CD F2 AE F7 D1 49 5F 8B-F9 56 0E EB 00 00 83 C4	....I...V.....
003F50	02 52 50 57 57 6A 01 6B-F3 00 FF 76 FA 6A 01 6A	.RFWWj.h...v.j.j
003F60	00 9A 00 00 00 00 83 C4-12 46 BB 46 06 01 46 EE	.....F.F..F.
003F70	3B 76 10 7E B2 89 7E FB-89 76 F2 8B 46 00 05 F7	;v.^..^..v..F...
003F80	00 89 46 FC 8B 46 12 89-46 F2 C7 46 F4 00 00 85	..F..F..F..F...
003F90	46 14 39 46 F2 7F 6A 8B-46 FC B9 46 EE 8B 46 14	F.9F.j.F..F..F.
003FA0	2B 46 12 40 89 46 F0 01-46 F4 8B 76 F2 SB 46 EE	+F.9.F..F..V..F.
003FB0	89 46 F6 56 0E ES 00 00-83 C4 02 SB DB SE C2 57	.F.V.....W
003FC0	8B FB B9:FF FF 33 00 F2-AE F7 01 49 5F 8B FP 56	....3....F..V
003FF0	0E E2 00 00 83 C4 02 SB-50 57 57 6A 01 FF 76 FE	....RFWWj..V.
003FFC0	88 FC 00 8A 01 6A 00 7A-00 00 00 00 83 C4 12 42	0..J..J..V..F
003FFD0	8E 46 08 01 46 EE 36 76-14 7E B1 89 7E FB 89 1e	,F..F..V..F..V..V
004000	F2 BB 46 0C 69 46 FC 8B-46 12 89 46 F2 C7 46 FA	,F..F..F..F..F..F.
004010	00 02 BB 46 14 39 46 F2-7F 6A 8B 46 FC 89 46 EE	,F..F..F..F..V..V
004020	89 46 14 2B 46 12 40 89-46 F0 01 46 F4 8B 76 F2	,F..F..V.....
004030	BB 46 EE 89 46 F6 56 0E-8B 00 00 83 C4 02 SB DB	,W.....3....J..
004040	8E C2 57 SB FF B9 FF FF-33 00 F1 4E F7 D1 49 5F	....W.....,RFWWj..
004050	8B F9 56 0E EB 00 00 8T-C4 02 SB 50 57 6A 01	,W..J..J..V..V..V..
004060	FF 76 F6 68 FC 00 64 01-8A 00 9A 00 01 90 00 83	,F..F..F..V..V..V..
004070	C4 12 46 9B 46 08 01 46-EE 3B 76 14 7E B2 89 7E	,W..J..J..V..V..V..W
004080	F8 89 76 F2 1F 5E 5F C7-CB 90 C8 00 00 00 57 58	....W..J..V..V..V..
004090	1E B2 00 00 8E DB FF 76-0B 6A 01 9A 00 00 00 00	....V.....
0040A0	83 C4 04 FF 76 06 9A 00-00 00 00 83 C4 02 8E 7E	....ut.6...6.....
0040B0	08 01 75 74 FF 38 14 00-FF 36 12 00 9A 00 00 00	....6.....
0040C0	00 83 C4 04 FF 38 15 00-9A 00 00 00 00 83 C4 02	....6.....,V..V..
0040D0	BB 34 12 00 B1 C6 01 01-FF 36 14 00 56 9A 00 00	....6.....
0040E0	00 00 83 C4 04 FF 36 16-00 9A 00 00 00 00 83 C4	....W..6.....
0040F0	02 8B 3E 14 06 B1 C7 F1-00 57 FF-76 0C 9A 00 00 00	....S.....
004100	00 00 00 83 C4 04 FF 36-18 00 9A 00 00 00 00 83	....HV.....6..
004110	C4 02 57 56 9A 00 00 00-00 83 C4 04 FF 36 16 00	....V.....V..V..
004120	9A 00 00 00 00 83 C4 02-FF 76 0E FF 76 0C 9A 00	....V.....
004130	00 00 00 83 C4 04 FF 76-0A 9A 00 00 00 00 83 C4	....V.....V..V..
004140	02 BB 76 0C B1 C6 01 01-FF 76 0E 56 9A 00 00 00	....V.....
004150	00 83 C4 04 FF 76 0A 9A-00 00 00 00 83 C4 02 BB	....W..V.....
004160	7E 0E B1 C7 F1 00 57 FF-76 0C 9A 00 00 00 00 83	....V.....WV..
004170	C4 04 FF 76 0A 9A 00 00-00 00 83 C4 02 57 56 9A	....V.....VH..V
004180	00 00 00 00 8F 9C C0 00-CF AE 56 48 CF A4 56 29	....VH..V),EVH,HV)
004190	CF 99 56 48 CF 86 56 29-CF 7B 56 48 CF 68 56 29	,EVH,OV),L..CVH,
0041A0	CF 5D 56 48 CF 4F 56 29-C7 4C 9F CF 43 56 48 CF	9V).6..,VH.*..!
0041B0	39 56 29 C7 36 9F CF 2D-56 48 C7 2A 9F C7 21 9F	..V)...VH.....
0041C0	CF 18 56 29 C7 15 9F CF-0C 56 48 C7 08 9F C7 00	...V)...VH.....
0041D0	9F CE F7 56 29 C6 F4 9F-CE EB 56 48 C6 EB 9F C6	...V...V>....V
0041E0	E4 9F CE D5 56 1D CE CA-56 3E CA C0 9D CE 99 56	...V/.gV/.V!.V
0041F0	21 86 83 56 2F 86 67 56-2F CE 16 56 21 86 00 56	/..V//.VI..zV-.~V
004200	2F 55 E4 56 2F CD 90 56-21 85 7A 56 20 85 5E 56	-..V!..V..V-..
004210	2D CD 0A 56 21 84 F4 56-2D 84 DB 56 2D CB 9C 9D	

EP 0401 077 A2

004220	CC	BB	56	4B	C4	78	9D	CC-6F	56	4B	C4	5D	9D	CC	54	..VK..,..VK..,J..,T
004230	56	4B	C4	42	9D	CC	39	56-4B	C4	28	9D	C8	22	9D	CC	VK..B..,9VK..,..,"..
004240	17	56	49	CC	0A	56	48	CF-A0	9C	00	01	20	23	83	C4	.VI.,VH.... #..
004250	04	FF	76	0A	9A	00	00	00-00	83	C4	02	8B	46	0A	A3	..V.....F..
004260	16	00	BB	46	0C	A3	12	00-BB	46	0E	A3	14	00	1F	5E	..F....F....^
004270	5F	C9	CB	90	CB	00	00	00-1E	BB	00	00	BE	D8	FF	76	-----,..V
004280	08	6A	01	9A	00	00	00	00-83	C4	04	6A	01	7A	00	00	..j.....j....
004290	00	00	83	C4	02	B3	7E	06-01	75	1C	FF	36	1A	00	FF	....,..u..,6..,
0042A0	36	1B	00	19A	00	00	00	00-83	C4	04	FF	36	1C	00	7A	.....,..e..,
0042B0	00	00	00	00	83	C4	02	FF-76	0E	FF	76	05	9A	00	00	.....,..V..,V..,
0042C0	00	00	83	C4	04	FF	76	06-94	00	00	00	00	83	C4	02	.....,..V..,V..,
0042D0	8E	48	0A	63	1C	00	BB	46-0C	A3	18	00	BB	46	0E	A3	,F....F....F..,
0042E0	1A	00	1F	C8	90	4E	9C-38	00	C4	92	9F	C4	8C	9F	.....,..N..,.....	
0042F0	C4	8A	9F	CC	7B	56	29	CC-70	56	46	CC	62	56	29	C4	...,(V),,DVH,BV),,
004300	5F	9F	CC	58	58	48	C4	53-5F	C4	4F	9F	CC	40	58	1D	...,(VH,S,,D,,BV,
004310	CC	38	58	38	2C	95	C4-1E	9F	C4	18	9F	C4	12	9F	..,V.....,..,	
004320	CC	07	58	28	BC	3A	02	00-00	74							..,V)....,t
004330	CC	07	58	28	BC	3A	02	00-00	74							..,V)....,t

EP 0 401 077 A2

000500	7E 07 C7 46 9-FF 00 EB-0B 83 7E 94 00 7B-25 C7	...F.....?..)
0005D0	46 94 00 00 2B 46 F6 03-46 F0 3B 46 08 7D 05 C7	F....F..F.;F.3..
0005E0	46 94 7F 00 C4 5E F2 BA-46 94 26 88 07 83 46 F8	F...^..F.&..F.
0005F0	02 83 46 F2 02 FF 4E 8E-75 92 80 46 8D 04 46 81	..F...N.u..F..F.
000600	FE DF 01 7F 03 E9 5D FF-5A 00 9A 00 00 00 00 00 83	....J..j.....
000610	C4 02 6A 01 6A 02 9A 00-00 00 00 83 04 04 84 00	..j..j.....j..
000620	6A 03 6A FF 6A 01 9A 00-00 00 00 83 C4 08 84 08	j..j..j.....j..
000630	6A 03 6A 01 6A 01 9A 00-00 00 00 83 C4 08 84 08	j..j..j.....j..
000640	6A 01 6A FF 6A 02 9A 00-00 00 00 83 C4 08 84 08	j..j..j.....j..
000650	6A 01 6A C2 6A 02 9A 00-00 00 00 83 C4 08 84 08	j..j..j.....j..
000660	6A 03 6A FF 6A 03 9A 00-00 00 00 83 C4 08 84 08	JF..F..V..V..V..V..
000670	00 00 01 97 25 46 7B 9B-7A 9B 06 01 71 0E 21 00	JF..F..V..V..V..V..
000680	89 46 7B 39 46 96 FF 7B-7A 7B 06 01 71 0E 21 00	JF..F..V..V..V..V..
000690	00 00 C4 04 89 46 96 FF 7B-7A 9C 06 00 75 15 FF 76	JF..F..V..V..V..V..
0006A0	99 75 7B 96 1E 6B CB 00-9A 00 00 00 00 00 00 00	JF..F..V..V..V..V..
0006B0	2E 50 1F 3E 5B 29 CE FF-7B 7B 94 06 00 00 00 00 00	JF..F..V..V..V..V..
0006C0	00 00 83 C4 04 FF 7B 9C-FF 7B 94 06 00 00 00 00 00	JF..F..V..V..V..V..
0006D0	83 C4 04 FF 7B 9C FF 7B-7A 9C 06 01 00 00 00 00 00	JF..F..V..V..V..V..
0006E0	34 0E 5B 00 00 9A 00 00-00 00 00 00 00 00 00 00 00	JF..F..V..V..V..V..
0006F0	00 00 00 00 00 01 00 1F-5E 5B CB 1A 00 01 00 00 00	JF..F..V..V..V..V..
000700	00 CE FB 5E 04 CE F0 B6-03 CE E5 5E 02 9B 6B 5B	JF..F..V..V..V..V..
000710	0A CE DF 5E 0B CE C1 5B-05 CE C5 5E 09 CE 4E 5E	JF..F..V..V..V..V..
000720	1F 2A AB 9D CE 92 5E 0E-CE 74 5E 18 CE 6C 5E 14	JF..F..V..V..V..V..
000730	CE 5C 5B 15 CE 4C 5E 14-CE 3C 5E 15 CE 2C 5E 15	JF..F..V..V..V..V..
000740	CE 1C 5E 16 CE 10 5E 13-CE 74 5E 17 CD 0E 5E 14	JF..F..V..V..V..V..
000750	ED 52 5E 13 CD 4C 5E 14-CE 3C 5E 15 CD 2C 5E 14	JF..F..V..V..V..V..
000760	00 13 5E 13 CD 09 5E 0F-CE FA 5E 1A 04 F2 9D 84	JF..F..V..V..V..V..
000770	E6 5E 08 CC E0 5B 04 CC-DE 5E 07 CC 0E 5E 02 00	JF..F..V..V..V..V..
000780	CE 5E 10 C4 CE 9D 08 CC-9D C4 B1 9D CC AB 5E 07	JF..F..V..V..V..V..
000790	C4 A5 9F C4 9E 9D 08 98-9D C4 90 9D CC 87 5E 11	JF..F..V..V..V..V..
0007A0	C4 B0 9D C4 7C 9F CC 73-56 11 C4 0C 9D C4 6B 9F	JF..F..V..V..V..V..
0007B0	CC 5F 56 11 C4 5B 9D C4-54 9F C4 4E 9F CC 45 5E	JF..F..V..V..V..V..
0007C0	1B C4 42 9F CC 39 5E 0C-C4 36 9F CB 28 56 12 C4	ZV.. -----t
0007D0	25 56 12 CB 20 9D CB 0E-9D AB BA 02 00 00 74	ZV.. -----t
0007D0	25 56 12 CB 20 9D CB 0E-9D AB BA 02 00 00 74	ZV.. -----t

EP 0 401 077 A2

0000000	80 08 00 06 70 63 68 67-2E 63 3F 88 07 00 00 00 00	....pchg.c?....
000010	4D 53 20 43 6E 88 09 00-00 9F 4C 4C 49 42 43 45	MS On....LLIBCE
000020	25 B8 06 00 00 9D 32 60-4F EB 88 06 00 00 A1 01	%....210.....
000030	43 56 37 96 32 00 00 06-44 47 52 4F 55 50 09 50	CV7.2...DGROUP.P
000040	43 48 47 5F 54 45 58 54-04 43 4F 44 45 05 5F 44	CHG_TEXT.CODE._D
000050	41 54 41 04 44 41 54 41-05 43 4F 4E 53 54 04 5F	ATA.DATA.CONST._
000060	42 53 53 03 42 53 53 15-98 07 00 48 02 03 03 04	B63.BSS....H....
000070	01 0C 98 07 00 48 40 01-05 06 01 CC 98 07 00 48	....He.....H
000080	00 00 07 07 01 0A 98 07-00 48 46 00 08 09 01 C1	.....HF....
000090	5A 08 00 02 FF 03 FF 04-FF 02 58 8C 0D 00 00 03	.....V....
0000A0	01 02 02 01 03 04 40 01-45 01 00 30 5E 00 04 5F	....e.E...V...
0000B0	5F 61 62 72 76 75 73 68-64 00 12 5F 63 6C 65 61	_scrnused..._clear
0000C0	72 5F 61 63 74 69 6F 6E-5F 61 73 45 01 00 10 5F	action_area..._
0000D0	63 6C 65 61 72 5F 6C 55-6E 75 5F 61 72 65 61 00	clear_menu_area.
0000E0	13 5F 63 6C 65 61 72 5F-6D 68 73 73 61 67 65 5F	.._clear_message_
0000F0	61 72 65 61 00 14 5F 77-72 69 74 65 5F 61 6C 6C	area..._write_all
000100	5F 73 74 61 6E 64 51 72-54 73 00 16 54 08 00 08	_standards....
000110	62 75 67 6C 64 70 74 72-00 53 8C 0C 00 09 5F 75	buildptr...._w
000120	6E 73 62 74 5F 77 5E 00-8D 84 1F 00 16 73 68 6F	neset_wn...._end
000130	77 5F 67 64 65 6E 74 69-68 54 65 12 5F 77 69 6E	w_identifier_win
000140	54 5F 77 00 E3 8C 03 01-10 5F 70 75 74 5F 70 63	dow...._put_pc
000150	68 57 5F 76 61 6C 75 65-73 00 0F 5F 72 65 6D 6F	ng_values..._remo
000160	76 55 5F 77 59 6E 64 6F-77 73 00 15 5F 63 6C 6F	ve_windows..._cio
000170	73 65 5F 73 74 61 6E 64-61 72 64 73 5F 66 69 6C	se_standards_fil
000180	45 00 08 5F 64 65 66 73-5F 77 65 00 05 5F 70 63	e..._defn_wn..._pc
000190	58 67 00 0E 5F 67 65 74-5F 73 74 61 6E 64 61 72	ng..._lost_standar
0001A0	64 73 00 0C 5F 73 65 74-5F 6D 65 71 73 61 67 65	ds..._set_message
0001B0	00 11 5F 73 65 74 5F 73-63 72 65 65 6E 5F 74 69	.._set_screen_tie
0001C0	74 6C 65 00 07 5F 76 5F-70 6C 73 74 00 08 5F 62	.._v plist.._b
0001D0	64 72 5F 64 6C 6E 00 0B-5F 69 6D 5F 6F 75 74 6D	dr_din..._im_outm
0001E0	6F 64 65 00 0B 5F 69 6D-5F 6F 75 74 70 61 74 68	ode..._im_outpath
0001F0	00 0E 5F 69 6D 5F 69 6E-74 65 72 69 6D 61 67 65	.._im_interimage
000200	00 0A 5F 69 6D 5F 6F 70-6D 6F 64 65 00 0A 5F 69	.._im_opmode..._i
000210	6D 5F 63 70 75 77 69 6E-00 13 5F 67 65 74 5F 65	m_cpuwin..._get_e
000220	78 70 65 72 69 6D 65 6E-74 5F 6B 65 79 00 07 5F	xperiment_key.._
000230	65 72 72 6D 73 67 00 08-5F 73 70 72 69 6E 74 66	errmsg..._sprintf
000240	00 07 5F 73 65 74 5F 77-6E 00 82 86 29 00 00 01	.._set_wn...)
000250	08 62 75 69 6C 64 70 74-72 00 00 00 16 73 68 6F	.buildptr....sho
000260	77 5F 69 64 65 6E 74 69-66 69 65 72 5F 77 69 6E	w_identifier_win
000270	64 6F 77 1E 00 00 44 90-1F 00 00 01 0F 5F 72 65	dow...D....._re
000280	6D 6F 76 65 5F 77 69 6E-64 6F 77 73 96 00 00 05	move_windows....
000290	5F 70 63 68 67 B8 00 00-96 88 04 00 00 A2 01 D1	_pchg.....
0002A0	A0 02 01 02 02 00 20 20-20 20 20 20 20 20 20 20	.....
0002B0	20 50 20 20 43 20 20 48-20 20 47 20 20 20 20 20 20	P C H G
0002C0	20 20 20 20 20 20 20 20-00 43 61 6C 63 75 60 61	.Calcula
0002D0	74 65 6E 67 20 70 65 72-63 65 6E 74 20 63 68 61	ting percent cha

MODULE 4

EP 0 401 077 A2

0002E0	6E 67 65 20 67 6D 61 67-65 20 20 00 75 75-69 6E	ng image using integer number arithmetic. .B
0002F0	67 20 69 6E 74 65 67 65-72 20 6E 75 6D 62 65 72	iological Vision
000300	20 61 72 69 74 68 6D 65-74 69 63 2E 20 20 00 42	PCHG - Percent change between 2 images. Scale = %d Clip = %d
000310	69 6F 60 6F 67 69 63 61-6C 20 56 69 73 69 6F 6E	Offset = %d. F
000320	20 20 20 50 43 48 47 20-2D 20 50 65 72 63 65 6E	CHG: Can't access standards information for key %ld.....A.B
000330	74 20 63 68 61 6E 67 65-20 62 65 74 77 65 65 6E	....Copyright (c) 1989, Biologicai Vision Inc.
000340	20 32 20 69 6D 61 67 65-73 00 53 63 61 6C 65 20	All rights reserved.
000350	3D 20 25 64 20 20 20 43-6C 69 70 20 3D 20 25 64	.....F, E, E, F, & .
000360	20 20 20 4F 66 66 73 65-74 20 7D 20 25 64 00 50	....RF, E, J, J, .
000370	43 45 47 3A 20 43 61 6E-27 74 20 61 63 62 65 73	h.....P, .
000380	73 20 77 74 51 5E 64 61-72 64 73 20 69 6E 66 6F	.....B, ., h,
000390	72 3D 61 74 69 6F 6E 20-00 6F 72 20 6B 65 76 20	..h...n, ., j, ., .
0003A0	23 6E 54 00 29 40 06 00-02 00 00 00 00 58 A0 44	....h..., HH, A, J
0003B0	00 02 00 01 43 6F 70 79-72 69 67 6B 74 20 28 63	.....>, t, ., h
0003C0	29 20-31 39 38 37 2D 20-42 67 5F 6C 6F 67 67 63	....t, ., W, ., .
0003D0	51 6C 20 56 67 73 59 6F-6E 20 45 6E 63 2E 20 20	F...hk, ., .
0003E0	41 6C 6C 20 72 69 57 66-74 77 20 72 55 73 65 72	....j, v, v, ., h, .
0003F0	76 68 54 00 28 40 06 03-01 00 00 08 00 00 00 1E	F...P, ., ., F, .
000400	58 00 00 6E 18 C4 5E 06-82 4E 1E 25 89 47 02 8B	Pj, ., ., j, ., ., .
000410	4E 02 26 8F 07 1F 09 CB-50 1E 8E 00 00 8E DB BB	....j, ., ., ., ., .
000420	00 00 5A 00 00 52 50 5A-28 6A 05 6A 04 6A 03 1E	....F, ., ., ., ., .
000430	68 00 00 94 00 00 00 00 00-83 C4 10 1E 68 00 00 9A>, ., ., ., ., .
000440	00 00 00 00 83 C4 04 C7-05 42 00 01 00 1E 68 00	....t, ., ., ., ., .
000450	00 1E 6B 02 00 6A 01 5A-01 94 00 00 00 00 B3 C4	....h, ., ., ., ., .
000460	0E 1E 6B 00 00 1E 6B 2E-00 6A 01 6A 02 94 00 00	....h..., HH, A, J
000470	00 00 B3 C4 0C 1E 6B 00-00 1E 6B 4B 00 6A 01 6A	.....>, t, ., h
000480	03 5A 00 00 00 83 C4-0C C7 0E 00 00 01 00 1F	....t, ., W, ., .
000490	CB 1E 6B 00 00 5E 08 63-3E 00 00 00 74 0C 1E 6B	F...hk, ., .
0004A0	00 00 7A 00 00 00 00 00-04 04 C7 0E 00 00 00 00 0E	....j, v, v, ., h, .
0004B0	1F CB 70 CE 74 00 00 57-56 1E BB 00 00 00 8E DB C7	F...P, ., ., F, .
0004C0	46 7E 7F 00 1E 6B 6B 00-9A 00 00 00 00 00 83 C4 04	Pj, ., ., j, ., ., .
0004D0	9A 00 00 00 00 9A 00 00-00 00 9A 00 00 00 00 00 8D	....j, ., j, ., j, ., .
0004E0	E8 00 00 6A 7F FF 76 08-FF 76 06 1E 6B A6 00 8D	....j, ., j, ., j, ., .
0004F0	46 A0 16 50 9A 00 00 00-00 83 C4 0E 8D 46 A0 16	....F, ., ., j, ., ., .
000500	50 6A 01 9A 00 00 00 00-83 C4 06 6A 01 9A 00 00	....F, ., ., j, ., ., .
000510	00 00 B3 C4 02 6A 00 6A-02 6A FF 6A 01 9A 00 00	....F, ., ., j, ., ., .
000520	00 00 B3 C4 08 6A 08 6A-02 6A 01 6A 01 9A 00 00	....F, ., ., j, ., ., .
000530	00 00 B3 C4 08 6A 00 6A-00 6A FF 6A 01 9A 00 00	....F, ., ., j, ., ., .
000540	00 00 B3 C4 08 C7 46 FA-00 D0 6A 01 9A 00 00 00 B3 C4 04	....j, ., j, ., ., .
000550	00 B3 C4 02 6A 04 6A 00-9A 00 00 00 00 00 00 00 00 9A 00	+..v, ., ., F, P, .
000560	2B F6 89 76 8C BB C6 C1-F8 06 89 46 92 50 9A 00	....F, ., F, ., V, @
000570	00 00 00 B3 C4 02 6B 46-8C 89 46 F8 BB 56 FA 40	.F, ., V, ., ^, ., ^, &
000580	89 46 F2 B9 56 F4 BF 00-02 89 7E 8E C4 5E FB 26	....F, ., ^, &, ., F,
000590	8A 07 98 89 46 F6 C4 5E-F2 26 8A 07 98 89 46 F0	+F, ., n, ., N, ;N, ^, .
0005A0	2B 46 F6 F7 6E 06 99 BB-4E F6 3B 4E F0 7E 03 8B	N, ., ., ., F, =, .
0005B0	4E F0 89 C9 01 F7 F9 05-7F 00 89 46 94 3D FF 00	

EP 0 401 077 A2

000E60	BA 00 20 C7 C4 C4 C4 C4-C4 C4 C4 C4 C4 C4 C4 C4	.....
000E70	C4 C5 C4 C4 C4 C4 C4 C4-C4 C4 C4 C4 C4 C4 B3	.....
000E80	20 52 61 64 69 75 73 3D-20 25 33 64 20 BA 00 20	Radius= %3d ..
000E90	BA 20 20 25 36 64 20 20-20 20 20 B3 20 20 25 36	. %6d . %6
000EA0	64 25 25 20 20 20 20 B3-20 58 20 20 20 20 20 3D	d% . X =
000EB0	20 25 33 64 20 BA 00 20-BA 20 20 20 28 25 36	%3d .. (%6
000ED0	64 29 20 B3 20 20 28-25 36 64 29 20 20 B3 20	d) . (%6d)
000EE0	59 20 20 20 20 20 3D 20-25 33 64 20 BA 00 20 C8	y = %3d ..
000EF0	CD CD CD CD CD CD CD CD CF CD CD	.....
000F00	CD CD CD CD CD CD CD CF CD CD	.....
000F10	CD CD CD CD CD CD CD CF CD CD	..... Check
000F20	20 70 72 69 6E 74 65 72-20 73 74 61 74 75 73 2C	printer status.
000F30	20 70 72 69 73 73 20 49-20 74 6F 20 69 67 6E 6F	Press I to ignore it. G to continue..PRN.*** C
000F40	69 6E 75 65 2E 00 50 52-4E 00 2A 2A 2A 2A 20 43	an not open device Line Printer
000F50	61 6E 20 6E 6F 74 20 6F-70 65 6E 20 64 65 76 69	***. POSITION
000F60	63 65 20 4C 67 5E 65 20-50 72 69 6E 74 65 72 20	N. CONTROL.
000F70	2A 2A 2A 2A 00 20 20 20-20 50 4F 53 49 54 45 4F	EXPERIMENT
000F80	4E 00 20 20 20 20 43 4F-4E 54 52 4F 4C 00 20 20	DIFFERENCE
000F90	20 20 20 20 20 20 45 58-50 45 52 49 4D 45 4E 54	E. %CHANGE..
000FA0	00 20 20 20 20 20 44-49 46 46 45 52 45 4E 43	X2d% .. %s.%s%11
000FB0	45 00 20 20 20 20 25 25-43 48 41 4E 47 45 0A 00	d%16d%16d%13d.%s
000FC0	25 32 64 25 73 20 20 20-25 73 2C 25 73 25 31 31	%s%4d%4d%5d%5d.
000FD0	64 25 31 36 64 25 31 36-64 25 31 33 64 00 25 73	K.+..p.CONTROL.E
000FE0	20 25 73 25 34 64 25 34-64 25 35 64 25 35 64 00	XPERIMENT.DIFFER
000FF0	4B A0 2B 00 02 70 04 43-4F 4E 54 52 4F 4C 00 45	ENCE.% CHANGE...
001000	58 50 45 52 49 4D 45 4E-54 00 44 49 46 46 45 52	.....S...
001010	45 4E 43 45 00 25 20 43-48 41 4E 47 45 00 E1 A0	.....Copyr
001020	0A 00 02 00 00 00 00 00-00 01 00 53 A0 06 00 02	ight (c) 1989, Bi
001030	D4 00 FF FF 86 A0 C2 00-02 3A 03 43 6F 70 79 72	ological Vision
001040	69 67 68 74 20 28 63 29-20 31 39 38 39 2C 20 42	Inc. All rights
001050	69 6F 6C 6F 67 69 63 61-6C 20 56 69 73 69 6F 6E	s reserved.....
001060	20 49 6E 63 2E 20 20 41-6C 6C 20 72 69 67 68 74%...?..
001070	73 20 72 65 73 65 72 76-65 64 00 00 00 00 00 00	.a.....
001080	00 0C 00 00 00 15 00 00-00 25 00 00 00 3F 00 00	....J.....
001090	00 61 00 00 00 B1 00 00-00 B1 00 00 00 DD 00 00	.9.....M..
0010A0	00 15 01 00 00 5D 01 00-00 9F 01 00 00 E9 01 00	....I.....!
0010B0	00 39 02 00 00 91 02 00-00 ED 02 00 00 4D 03 00	....T.....U..
0010C0	00 BD 03 00 00 31 04 00-00 A9 04 00 00 21 05 00	....A.....
0010D0	00 A1 05 00 00 2D 06 00-00 C5 06 00 00 55 07 00	....J...H.4...
0010E0	00 E9 07 00 00 A1 08 00-00 41 09 00 00 F9 09 00	.....
0010F0	00 A5 0A 00 00 5D 0B 00-00 48 A0 34 00 02 CA 07	.....
001100	AF 07 00 00 B1 07 00 00-B3 07 00 00 B5 07 00 00	.....
001110	B7 07 00 00 B9 07 00 00-BB 07 00 00 BD 07 00 00	.....
001120	BF 07 00 00 C1 07 00 00-C4 07 00 00 C7 07 00 00	.....
001130	4A 9C 25 00 CC 2C 9D CC-28 9D CC 24 9D CC 20 9D	J.%...,\$..

EP 0401077 A2

001140	CC 1C 9D CC 18 9D CC 14-9D CC 10 9D CC 0C 9D CC	.....K.\$....
001150	08 9D CC 04 9D CC 00 9D-4B A0 24 00 02 0A 08 FA	.....
001160	07 00 00 FC 07 00 00 FE-07 00 00 00 08 00 00 02	.....
001170	08 00 00 04 08 00 00 06-0B 00 00 08 08 00 00 E3	.....
001180	9D 19 00 CC 1C 9D CC 18-9D CC 14 9D CC 10 9D CC	.....
001190	0C 9D CC 08 9D CC 04 9D-CC 00 9D 93 A0 20 00 02	.....
0011A0	54 0A 00 00 00 01 00 00-00 01 00 00 00 00 F0 00	T.....
0011B0	F0 00 00 00 00 00 00 00-03 00 01 00 01 00 F9 A0	.....
0011C0	96 00 02 98 0A 01 00 B5-A0 9E 00 01 00 00 C8 08	..WV.....
0011D0	00 00 57 56 1E BB 00 00-BE D8 EB 05 9A 00 00 00 00	.....+...F.
0011E0	00 5A 00 00 00 00 00 0B 00-75 F2 FF 76 06 FF 76 06	.....+...F.
0011F0	FA 00 00 00 00 00 00 00 04-2B F6 2E FF 5A 46 0C 95	FF.F...F.....
001200	B7 46 FA 8A 46 0A 98 89-46 FB 5A 00 00 00 00 00 00	.....5..P.....
001210	F9 F6 84 01 00 02 74 06-8D 44 60 EB 03 90 82 06	..WV.t..W.....
001220	8B F0 3B 76 F8 74 05 3B-76 FA 75 03 BF 01 00 08	..WV.W.....F
001230	FF 74 D7 89 7E FC 89 76-FE 9A 00 00 00 00 00 00 00	..WV.W.....F
001240	0A 98 3B C6 75 0A C6 06-04 00 01 1F 5E 5F 09 CE	..WV.W.....F
001250	C6 06 04 00 00 1F 5E 5F-C9 CB 1E BB 00 00 BE DB	.....
001260	C6 06 04 00 01 1F CB 90-1F 9C 28 00 C4 5A 7D 02	.....Z..W..EV.
001270	8E 9D C4 84 9D C4 7A 9D-CC 6C 5E 0C C4 4E 5E 0D	..WV..WV..WV..WV
001280	CC 3D 56 37 CC 23 56 59-CC 14 56 3B CC 0F 56 37	.....W..
001290	08 0E 9D 14 A0 06 00 03-00 00 00 00 00 57 9D 05 00	..WV.....
0012A0	C8 00 56 23 1E A0 DB 00-01 9A 00 08 00 00 00 00 1E	.....W.....
0012B0	BB 00 00 8E DB A1 00 00-0B 06 02 00 75 27 80 3E	..WV.....
0012C0	05 00 00 75 1A FE 06 05-00 1E 68 06 00 9A 00 00	.....
0012D0	00 00 83 C4 04 9A 00 00-00 00 9A 00 00 00 00 00 2B	.....
0012E0	00 1F C9 CB 90 BE 06 00-00 BB 46 06 2E A3 00 00	1F.E...F..V.S...
0012F0	BB 46 08 26 A3 02 00 BB-46 0A BB 56 0C 2E A3 04	..E...F..V.S...
001300	00 26 29 16 06 00 BB 46-0E BB 56 10 2E A3 08 00	.....>..33.6..
001310	26 99 16 0A 00 83 3E D4-00 00 7D 33 FF 36 02 00	..W...RF...
001320	FF 36 00 00 BB 00 00 BA-00 00 52 50 9A 00 00 00	....u..hL.....
001330	00 83 C4 08 0B C0 75 0F-1E 6B 4C 00 9A 00 00 00	.....
001340	00 83 C4 04 EB 99 90 C7-06 D4 00 01 00 EB 2A FF	6.....6...6...
001350	36 D4 00 FF 06 D4 00 FF-36 02 00 FF-36 00 00 BB	....RP.....
001360	00 00 BA 00 00 52 50 9A-00 06 00 00 00 83 C4 0A 0B	..u..h.....
001370	00 75 06 1E 68 90 00 EB-C3 BB 01 00 1F C9 CB 81	.t.....WV..W#..
001380	9C 74 00 C4 CA 9D CC BD-56 57 C8 B8 56 23 C4 B5	V#.....
001390	56 23 C4 B2 9D C4 AE 9D-C4 AA 9D C4 A6 9D C4 9E	....V.....VM.3V#
0013A0	9D CC 92 56 1C C4 8F 9D-CC 82 56 4D C8 7D 56 23	.zV#.W..S..1..hV
0013B0	C4 7A 56 23 C4 77 9D C4-73 9D C4 6C 9D C4 68 56	#.CV#.YV#.TV#.JV
0013C0	23 C4 63 56 23 C4 59 56-23 C4 54 56 23 C4 4A 56	#.CV#.C..OV..+V7
0013D0	23 C4 43 56 23 C4 3C 9D-CC 30 56 0C CC 2B 56 37	.#WV.....
0013E0	CC 23 56 59 C4 20 9D C4-1C 9D C4 15 9D C4 0F 9D	....O.....@
0013F0	C4 0B 9D C8 06 9D BB A0-30 00 03 02 00 00 00 EO 6F	@.....O.....
001400	40 00 00 00 00 00 00 00-40 00 00 00 00 00 00 00 F0	@.....@.....
001410	40 00 00 00 00 00 00 00 00-40 00 00 00 00 00 00 00 F0	@.....@.....

EP 0 401 077 A2

001420	3F 00 00 00 00 00 00 00 00-3F	BE AO B7 03 01 6E 01	?.....?....n.
001430	C8 8C 0D 00 57 56 1E BB-00 00 00 BE D8 C7 86 BA F6	....WV.....
001440	00 00 C7 86 4C F7 00 00-C7 B6 EA F6 80 00 C7 86	....L.....
001450	DC F6 78 00 C7 86 BC F6-02 00 C7 86 C0 F6 00 00	...x.....	
001460	C7 86 D6 F6 00 00 C7 46-A4 01 00 C7 86 C2 F6 00	.....F.....
001470	00 C7 86 A0 F2 01 00 C7-86 EC F6 FF 00 C7 86 A2	.....
001480	F2 00 00 C7 86 E0 F6 7E-00 C7 86 DB F6 76 00 C7	.....?....v..
001490	86 DA F6 80 00 C7 86 CC-F6 78 00 C7 86 54 F7 0A	.....x...T..
0014A0	00 C7 46 C2 00 00 C7 86-EE F6 00 00 C7 46 AC 14	..F.....F..	
0014B0	00 68 00 03 68 00 D0 9A-00 00 00 00 B3 C4 04 6A	.h..h.....j	
0014C0	00 6A 02 9A 00 00 00 00-B3 C4 04 6A 01 6A 01 9A 00 00	.j.....j..j..j	
0014D0	00 9A 00 00 00 00 B3 C4-06 6A 01 6A 01 9A 00 00	.....j..j..j..
0014E0	00 00 83 C4 04 6A 00 6A-01 9A 00 00 00 00 B3 C4	....j..j.....
0014F0	04 C7 06 D4 00 FF FF 0E-E8 00 00 C7 86 C4 F6 00	.....
001500	00 C7 86 C6 F6 01 01 C7-86 CB F6 00 00 C7 86 CA	.....
001510	F6 01 01 C7 86 B0 F6 F1-00 C7 86 B2 F6 F1 00 C7	.....
001520	86 B4 F6 00 00 C7 86 B6-F6 00 00 C7 46 BA 00 00	.....F...F...F...
001530	C7 46 BC 01 00 C7 46 BE-02 00 C7 46 C0 03 00 1E	.F...F...F...F...	
001540	68 D6 00 9A 00 00 00 00-B3 C4 04 6A 00 0E E8 00	h.....j....	
001550	00 B3 C4 02 9A 00 00 00-00 0E D2 7F 1B 7C 0E 3D	.....j..=
001560	00 04 73 14 1E 68 0F 01-9A 00 00 00 00 B3 C4 04	.s..h.....	
001570	2B C0 1F 5E 5F C9 CB 90-9A 00 00 00 00 9A 00 00	+..^.....	
001580	00 00 0B D2 7F 0E 7C 05-3D 22 01 73 07 1E 68 36	....l.=".s..h6
001590	01 EB D5 90 FF B6 54 F7-FF B6 C2 F6 FF 76 A4 0E	....T.....v..
0015A0	E8 00 00 B3 C4 06 1E 68-61 01 6A 00 9A 00 00 00	....ha.j....
0015B0	00 B3 C4 06 C7 86 A6 F4-01 00 8B 8E A6 F4 8B F1	.....
0015C0	8B C1 88 82 A7 F4 C6 82-A8 F4 FF 8B 82 A3 F2 C6	.....
0015D0	82 A4 F2 00 B3 C1 02 81-F9 FF 00 7E E1 89 8E A6	.....
0015E0	F4 6A 00 9A 00 00 00 00-B3 C4 02 8D B6 A4 F2 16	.j.....	
0015F0	50 BD 86 A4 F2 16 50 BD-86 A8 F4 16 50 68 00 01	P....P....Ph..	
001600	6A 00 6A 00 6A 01 9A 00-00 00 00 83 C4 14 6A 00	j..j..j.....j..	
001610	6A 02 9A 00 00 00 00 83-C4 04 6A 00 9A 00 00 00	j.....j..j..j..	
001620	00 B3 C4 02 FF B6 EC F6-9A 00 00 00 00 B3 C4 02	....
001630	6A 01 68 FE 00 6A 06 FF-76 BC FF 76 BC 9A 00 00	j.h..j..v..v..	
001640	00 00 B3 C4 0A 6A 01 68-FE 00 6A 06 FF 76 BE FF	....j.h..j..v..
001650	76 BE 9A 00 00 00 00 B3-C4 0A 6A 01 68 FE 00 6A	v.....j.h..j	
001660	06 FF 76 C0 FF 76 C0 9A-00 00 00 00 B3 C4 0A 6A	..v.....	
001670	00 FF 76 BA 9A 00 00 00-00 B3 C4 04 9A 00 00 00	....
001680	00 A3 00 00 89 16 02 00-0B D2 7F 0E 7C 04 0B C0	....l..
001690	75 08 2B C0 A3 02 00 A3-00 00 FF 36 02 00 FF 36	u.+.....6..6	
0016A0	00 00 9A 00 00 00 00 B3-C4 04 A3 00 00 89 16 02	....
0016B0	00 1E 68 0E 00 1E 68 0E-00 1E 68 0E 00 1E 68 0E	..h..h..h..h..	
0016C0	00 1E 68 0E 00 1E 68 0E-00 1E 68 0C 00 1E 68 0A	..h..h..h..h..	
0016D0	00 1E 68 08 00 1E 68 06-00 9A 00 00 00 00 B3 C4	..h..h..h..h..	
0016E0	28 0B C0 75 24 1E 68 7F-01 9A 00 00 00 00 B3 C4	(.u\$.h.....	
0016F0	04 C7 06 06 00 00 00 C7-06 0B 00 00 00 C7 06 0A	.....

EP 0401077 A2

001700	00 2B 00 C7 06 0C 00 3C-00 83 3E 06 00 00 75 3B	.+....<...>..u:
001710	83 3E 08 00 00 75 34, 83-3E 0A 00 00 75 2D 83 3E	.>..u4..>..u-..>
001720	0C 00 00 75 26 1E 6B A6-01 6A 00 9A 00 00 00 00	...u&.h...i.....
001730	83 C4 06 C7 06 06 00 00-00 C7 06 08 00 00 00 C7	-----
001740	06 0A 00 2B 00 C7 06 0C-00 3C 00 8D 86 F0 F6 16	...+....<.....
001750	50 8D 86 56 F7 16 50 9A-00 00 00 00 83 C4 08 0B	P..V..P.....
001760	D0 75 14 9B D9 EE 9B D9-9E 56 F7 9B D9 05 02 00	.u.....V.....
001770	9B D9 9E F0 F6 90 9B 8D-46 B2 16 50 8D 46 C4 16	.....F..P..F..
001780	50 9A 00, 00 00 00 83 C4-08 9B D9 26 F0 F6 9B DC	P.....
001790	16 06 00 9B DD D8 9B DF-E0 9E 75 04 9B D5 06 02	-----u.....
0017A0	00 9B D9 9E F0 F6 9B D9-B6 F0 F6 9B DC 16 26 00	-----F.....
0017B0	9B DD 18 9B DF E0 9E 72-13 9B D9 26 F0 F6 9B D8	IV.....S.....
0017C0	26 56 F7 9B DD D8 9B DF-E0 9E 73 0A 9B D9 06 02	.....F...N...
0017D0	00 9B D9 9E F0 F6 9B D9-46 C4 9B DB 4E B2 9B D9	....E..V...V..
0017E0	9E AB F6 10 9C 5A 01 C7-AE 56 05 C7 AA 56 05 C7 96	IV...V...V...V...
0017F0	A6 56 05 C7 A1 56 05 C7-9F 9C C7 9D 56 05 C7 96	V...V...V...V...
001800	56 05 C7 93 56 05 C7 BE-54 05 C7 89 56 05 C7 83	V...V...V...EV...VV
001810	56 05 C7 80 56 05 C7 7E-9C C7 7B 56 05 C7 76 56	...EV...D...IV...TV.
001820	05 C7 71 56 05 C7 6F 9C-C7 6C 56 05 C7 66 56 05	.EV...a...W...C...
001830	C7 63 56 05 C7 61 9C C7-5E 56 05 C7 59 56 05 CF	RV...EV...EV...V...
001840	52 56 08 C7 45 56 06 C7-40 56 05 C7 3E 9C C7 3B	V...EV...3V...IV...
001850	56 05 C7 36 56 05 C7 33-56 05 DF 28 56 24 C7 17	-----VX...
001860	9F C7 11 9F C7 0B 9F C7-05 9F CE FC 56 25 06 F7	-----
001870	9D C6 F0 9F C6 E9 9F C6-E2 9F C6 DE 9F C6 D5 9F	-----V...
001880	C6 CF 5F C6 C7 9F C6 C3-9F CE BA 56 1C C6 B7 9D	..VL.....
001890	CE AA 56 4C C6 A7 9F C6-A3 9F C6 9F 9F C6 9B 9F	-----
0018A0	C6 97 9F C6 93 9F C6 8F-9F C6 8B 9F C6 87 9F C6	...(.EV..D..
0018B0	83 9F C6 7F 9D C6 7B 9D-CE 73 56 1B C6 70 9F C6	I..h..e..v..R..H
0018C0	6C 9F C6 68 9F C6 65 9F-C6 56 9F C6 52 9F CE 40	V..EVx.BVV.#VV..
0018D0	56 08 CE 45 56 58 CE 3E-56 56 CE 23 56 56 CE 0E	VV..VU..VS..V>..
0018E0	56 56 CD F7 56 55 CD ED-56 53 CD E3 56 3E CD D7	VR..VP..3VX..X..qV
0018F0	56 52 CD B4 56 50 CD 7D-56 25 C5 78 9D 85 71 56	J...NV=,IVG,9V.
001900	4A C5 5F 9D CD 4E 56 3D-CD 49 56 47 CD 39 56 1C	.6..XV9..VE..V<.
001910	C5 36 9D CD 25 56 39 85-1F 56 45 CD 14 56 28 C5	...V.....VC..V
001920	11 9D 84 C9 56 12 C4 C3-9D CC BA 56 43 CC AE 56	A..VE..V>..V<..
001930	41 CC A2 56 40 CC 94 56-3E CC 8B 56 3C 08 08 9D	W....!.....6.
001940	77 A0 B8 03 01 21 05 9B-D9 B6 F0 F6 9B DC 36 0E	-----^.....
001950	00 9B D8 B6 A8 F6 9B D9-5E A8 90 9B C7 86 A6 F4	..+.....
001960	00 00 2B C0 B9 00 01 8D-BE A4 F2 16 07 F2 AB B9	-----V.
001970	86 A7 F4 02 BF EF 00 C7-86 98 F2 DE 01 FF 76 C0	j.....
001980	6A 00 9A 00 00 00 00 83-C4 04 8D 86 A8 F4 16 50	b.....j.....
001990	68 00 02 FF B6 98 F2 6A-00 9A 00 00 00 00 B3 C4	..F.....
0019A0	0A C7 46 EE 00 00 8D B6-AB F4 89 86 9A F2 8C 96	..+.....
0019B0	9C F2 2B C9 8C 9E 9E F2-C5 B6 9A F2 8B D9 03 DD	..6.....A..
0019C0	8A 04 36 88 87 A4 F2 83-C6 02 41 81 F9 FE 00 7E	..6.....A..
0019D0	EB 8E 9E 9E F2 89 4E EE-FF 76 BA 6A 00 9A 00 00	.....N..V.j....

EP 0 401 077 A2

0019E0	00 00 83 C4 04 8D 86 A4-F2 16 50 68 00 02 4D 85	.....Ph....
0019F0	F0 00 50 6A 00 9A 00 00-00 00 83 C4 0A B3 AE 98	..Pj.....
001A00	F2 02 4F 83 FF 01 7C 03-E9 72 FF 89 BE A6 F4 1E	..D...I..r....
001A10	68 C8 01 9A 00 00 00 00-83 C4 04 FF 76 BC 6A 00	h.....v.j.
001A20	9A 00 00 00 00 83 C4 04-1E 68 D5 01 9A 00 00 00	.....h....
001A30	00 83 C4 04 A1 06 00 99-2B C2 D1 F8 89 86 B8 F6+
001A40	A1 08 00 99 2B C2 D1 FB-05 F1 00 89 86 AC F6 A1+.....
001A50	6A 00 99 B9 04 00 F7 F9-03 86 B6 F6 89 46 D0 6A	.....F.j
001A60	00 6A 01 9A 00 00 00 00-83 C4 04 6A 00 9A 00 00	..j.....j....
001A70	00 00 83 C4 02 6A 00 6A-00 9A 00 00 00 00 B3 C4	....j.j....
001A80	04 FF B6 A0 F2 9A 00 00-00 00 83 C4 02 2B F6 A1+
001A90	0A 00 99 2B C2 D1 F8 F7-EE 03 46 D0 89 46 A0 50	...+....F..F.V
001AA0	0E EB 00 00 83 C4 02 BB-DB 8E C2 57 BB FB B9 FF	.....W....
001AB0	FF 33 00 F2 AE F7 D1 49-BF 8B F9 5e 0E EB 00 00	..3...1..V...
001AC0	B3 C4 02 52 50 57 57 6A-01 68 FA 00 FF 76 A0 6A	...RPWMJn..v.j
001ADD	01 6A 00 9A 00 00 00 00-83 C4 12 46 83 FE 0B 7E	..j.....F....
001AE0	AE B9 BE 5A F7 89 B6 A6-F4 A1 0C 00 99 B9 04 00	...Z.....
001AF0	F7 F9 8B C8 A1 0B 00 99-2B C2 D1 F8 03 C1 06 F7+
001900	00 89 46 C8 2B F6 A1 0C-00 99 2B C2 D1 F8 F7 EE	..F.+....+
001B10	03 46 C8 89 B6 5C F7 56-0E EB 00 00 83 C4 02 6B	..F...N.V.....
001B20	D8 8E C2 57 BB FB B9 FF-FF 33 C0 F2 AE F7 D1 45	..W....3....I
001B30	5F BB F9 56 0E EB 00 00-83 C4 02 52 50 57 57 6A	..V.....RPWMJ
001B40	02 FF B6 5C F7 6A 08 6A-01 6A 00 9A 00 00 00 00	..N.j.j.j....
001B50	83 C4 12 46 B3 FE 07 7E-AD 89 BE 5A F7 89 B6 A6	..F...^...Z....
001B60	F4 5A 00 6A 02 9A 00 00-00 00 B3 C4 04 6A 00 FE	..j.j.....j..
001B70	76 BA 6A FF FF 76 BA 9A-00 00 00 00 83 C4 08 6A	V.j..V.....j
001B80	00 6A 02 9A 00 00 00 00-83 C4 04 8B 84 EA F6 05	..j.....
001B90	FE 00 89 86 DE F6 8B B6-DC F6 05 EE 00 89 86 D2+
001BA0	F6 8B 66 EA F6 99 2B C2-D1 F8 40 29 86 D4 F6 8B+...@....
001BB0	86 DC F6 99 2B C2 D1 F8-05 F1 00 89 86 BE F6 FF+
001BC0	B6 A0 F2 9A 00 00 00 00-83 C4 02 8B B6 D4 F6 03	.....WV....
001BD0	B6 E0 F6 8B BE BE F6 03-BE D8 F6 57 56 FF B6 BE	.....V.j....
001BE0	F6 FF B6 D4 F6 FF 76 BA-6A 00 9A 00 00 00 00 B3+
001BF0	C4 0C 9B DF 06 0A 00 9B-D9 C0 9B DB BE BE F2 90	.....
001C00	9B 8B 86 D4 F6 2B 86 B8-F6 89 26 98 F2 9B DF B6+
001C10	9B F2 9B DD 0E 16 00 9B-D8 F1 9B D9 9E 4E F7 90	.....N..
001C20	9B 8B C6 2B 86 BB F6 89-86 98 F2 9B DF 86 9B F2+.....
001C30	9B DC 0E 16 00 9B D8 F1-9B D9 9E F4 F6 9B DF 06	.....
001C40	0C 00 9B D9 C0 9B DB BE-84 F2 90 9B 8B 86 BE F6	.....
001C50	2B 86 AC F6 89 86 98 F2-9B DF 86 98 F2 9B DC 0E	+.....
001C60	16 00 9B D8 F1 9B D9 9E-F8 F6 90 9B 8B C7 2B 86+
001C70	AC F6 89 86 98 F2 9B DF-86 9B F2 9B DC 0E 16 00	.....
001C80	9B DB F1 9B D9 9E E2 F6-9B D9 86 4E F7 9A 00 00	....N....
001C90	00 00 89 46 D2 9B D9 86-F4 F6 9A 00 00 00 00 89	..F.....
001CA0	46 CA 9B D9 86 F8 F6 9A-00 00 00 00 B9 46 CC 9B	F.....F..
001CB0	D9 86 E2 F6 9A 00 00 00-00 89 46 B6 9B DF 46 D2	.....F...F.

EP 0 401 077 A2

001CC0	9B DB A6 4E F7 9B DC 06-1E 00 9B D9 96 E6 F6 9B	...N.....
001CDO	DC 16 06 00 9B DD DB 9B-DF EO 9E 9B DD C1 9B DD	.....
001CEO	C0 74 13 9B D9 86 E6 F6-9B DC 16 1E 00 9B DD DB	.t.....
001CFO	9B DF EO 9E 75 14 9B DF-06 0A 00 C5 9C 69 01 C7	...u.....i..
001D00	B2 9F C7 AF 56 05 C7 A9-56 05 C7 A6 56 05 C7 A4	...v...v...v...
001D10	9C C7 A1 56 05 C7 9C 56-05 C7 97 56 05 C7 94 56	...v...v...v...v
001D20	05 C7 90 56 05 C7 8D 56-05 C7 8B 9C C7 88 56 05	...v...v...v...v
001D30	C7 83 56 05 C7 81 9C C7-7E 56 05 C7 79 56 05 C7	..v....~v..yv..
001D40	73 56 05 CF 6E 56 51 C7-68 56 05 CF 61 56 51 C7	uv..nvQ.nV..aVQ.
001D50	5B 56 05 CF 54 56 51 C7-4E 56 05 CF 47 56 51 C7	EV..TVQ.NV..GVQ.
001D60	41 56 05 C7 3C 56 05 C7-39 56 05 C7 37 9C C7 34	AV..yV..9V..7..4
001D70	56 05 C7 2F 56 05 C7 23-56 05 C7 11 56 05 C7 03 56	V...V..#V..v..
001D80	56 05 C7 19 9C C7 16 56-05 C7 11 56 05 C7 03 56	V....V...V...V...V
001D90	06 C6 FE 56 05 C6 FB 56-05 C6 F9 9F C6 F6 56 05	V...V...V...V..
001DA0	C6 F1 56 05 C6 EE 56 05-C6 EC 9C C6 EF 56 05 C6	V...V...V...V..
001DB0	E4 56 05 C6 DB 56 05 C6-D3 56 05 C6 D0 56 05 C6	V...V...V...V..
001DC0	CE 9C C6 CB 56 05 C6 C6-56 05 C6 BB 56 06 C6 B3	V...V...V...V...V
001DD0	56 05 C6 B0 56 05 C6 AE-9F C6 AE 56 05 CE A4 56	&.3VU.=V..1V6..V
001DE0	26 CE 7D 56 55 CE 3D 56-3E CE 31 56 24 CE 1F 56	>.V!..V..V/..V
001DF0	3E CE 05 56 21 85 EF 56-3F 82 D3 56 2F C5 00 9F	....V!..V!..WV-E
001EO0	C5 AE 9F C5 A3 9F CD 9D-56 21 B5 77 56 2D 85 5B	V-.I..?VU.3V..V
001E10	56 ZD C5 49 9F CE 3F 56-55 CD 33 56 3E CD 27 56	....V!
001E20	1D CD 1D 56 3E C5 09 9F-C4 FA 9F C4 EE 9F CC E6	V....V>..V...
001E30	56 1A C4 E3 9D DC DA 56-3E CC CD 56 1A C4 CA 9D	V...V..V..V..V..
001E40	CC AF 56 19 CC 97 56 3E-CC 53 56 16 CC 3C 56 3E	V...V..V..V..
001E50	C4 13 56 06 C4 0F 56 05-C4 0A 56 05 C4 08 9D C4	V...V..I..
001E60	05 56 05 C4 00 56 05 49-A0 17 03 01 D5 08 9B DC	6.....F..H..
001E70	36 16 00 9A 00 00 00 00-89 46 BB EB 46 5B D9 86	....&.....V
001E80	E6 F6 9B DC 16 26 00 9B-DD DB 9B DF EO 9E 76 13&.....
001E90	9B D9 86 E6 F6 9B DC 16-26 00 9B DD DB 9B DF EO	.V"
001EA0	9E 76 22 9B D9 86 E6 F6-9B DE 0E 0A 00 9B DF 06	....6.....
001EB0	0A 00 9B DC 36 16 00 9B-DE C1 9A 00 00 00 00 89	F..F...F.....
001EC0	46 B8 FF 46 D2 9B DF 46-CA 9B DB A6 F4 F6 9B DC	.....
001ED0	06 1E 00 9B D9 96 E6 F6-9B DC 16 06 00 9B DD DS	....t.....
001EE0	9B DF EO 9E 74 16 9B D9-86 E6 F6 9B DC 16 1E 00	....t..N..F.
001EFO	9B DD DB 9B DF EO 9E 74-03 FF 4E CA 9B DF 46 CC	.....
001FO0	9B DB A6 FB F6 9B DC 06-1E 00 9B D9 96 CE F6 9B	.....
001F10	DC 16 06 00 9B DD DB 9B-DF EO 9E 74 13 9B D9 86	....u..
001F20	CE F6 9B DC 16 1E 00 9B-DD DB 9B DF EO 9E 75 15	....6.....
001F30	9B DF 06 0C 00 9B DC 36-16 00 9A 00 00 00 00 89	....I.....&..
001F40	86 A4 F4 EB 49 9B D9 86-CE F6 9B DC 16 26 00 9B	....V.....
001F50	DD DB 9B DF EO 9E 76 13-9B D9 86 CE F6 9B DC 16	&.....v#..
001F60	26 00 9B DD DB 9B DF EO-9E 76 23 9B D9 86 CE F6	....6..
001F70	9B DE 0E 0C 00 9B DF 06-0C 00 9B DC 36 16 00 9B	....F..
001FB0	DE C1 9A 00 00 00 00 89-86 A4 F4 FF 46 CC 9B DF	F.....
001F90	46 B6 9B DB A6 E2 F6 9B-DC C6 1E 00 9B D9 96 CE	F.....

EP 0 401 077 A2

001FA0	F6 9B DC 16 06 00 9B DD-D8 9B DF EO 9E 74 16 9B	.....t..
001FB0	D9 86 CE F6 9B DC 16 1E-00 9B DD D8 9B DF EO 9E	.....
001FC0	74 03 FF 4E B6 FF B6 D2-F6 FF B6 DE F6 FF B6 DC	t..N.....T.
001FDO	F6 FF B6 EA F6 0E E8 00-00 B3 C4 08 FF B6 54 F7	.....
001FE0	FF B6 C2 F6 FF 76 A4 0E-E8 00 00 B3 C4 06 E9 68	....v.....h
001FF0	0D 8D 86 CO F6 16 50 8D-46 CE 16 50 8D 46 F2 16	....P.F..P.F..
002000	50 9A 00 00 00 00 B3 C4-OC 89 46 F0 FF B6 CO F6	P.....F....
002010	9A 00 00 00 00 B3 C4 02-83 7E A4 00 74 23 B3 7E	.....~..t#..
002020	F0 00 7E 1D B3 7E C2 01-75 17 FF B6 D2 F6 FF B6	..~..~..u.....
002030	DE F6 FF B6 DC F6 FF B6-EA F6 0E E8 00 00 B3 C4	.....
002040	08 B3 7E F0 00 7F 02 E9-0F 0D 83 7E F0 01 74 03	..~..~..t..
002050	E7 91 03 B3 7E A4 00 75-52 C7 B6 C2 F6 00 00 BB	....f..ub.....
002060	4e F2 01 86 DA F6 BB 46-CE 01 86 CC F6 B3 BE DA	F.....F....
002070	F6 00 7D 06 C7 B6 DA F6-00 00 B1 BE DA F6 FE 00	..3.....
002080	7E 06 C7 B6 DA F6 FE 00-83 BE CC F6 00 7D 06 C7	~.....~..
002090	86 CC F6 00 00 B1 BE CC-F6 EE 00 7E 06 C7 96 CC	.....
0020A0	F6 EE 00 FF B6 CC F6 FF-B6 DA F6 FF B6 54 F7 FF	.....T..
0020B0	76 BA 6A 01 0E E8 00 00-83 C4 0A B3 7E A4 01 74	v..j.....T..t
0020C0	03 E9 20 03 8B 46 F2 F7-AE BC F6 01 B6 EA F6 8B	...F.....
0020D0	46 CC F7 AE BC F6 01 86-DC F6 83 BE EA F6 01 7D	F.....
0020E0	0A C7 86 EA F6 01 00 FF-86 A2 F2 81 BE EA F6 FE	.....
0020F0	00 7E 0A C7 86 EA F6 FE-00 FF 86 A2 F2 83 BE DC	~.....
002100	F6 00 7D 06 C7 86 DC F6-00 00 B1 BE DC F6 EE 00	..3.....
002110	7E 06 C7 86 DC F6 EE 00-8B B6 EA F6 05 FE 00 89	~.....
002120	86 DE F6 BB B6 DC F6 05-EE 00 89 86 D2 F6 BB B6	.....
002130	EA F6 D1 F8 40 89 86 D4-F6 BB B6 DC F6 D1 F8 05	...e.....
002140	F1 00 89 86 BE F6 FF B6-A0 F2 9A 00 00 00 00 83	.....
002150	C4 02 8B B6 D4 F6 03 B6-E0 F6 BB BE BE F6 03 BE	...WV.....V..j
002160	DB F6 57 56 FF B6 BE F6-FF B6 D4 F6 FF 76 BA 6A	..WV.....V..j
002170	01 9A 00 00 00 00 B3 C4-OC 9B DF 06 0A 00 9B D9	.....V.....V..
002180	CO 9C 9C 76 01 C7 10 56-05 C7 0E 9F C7 0B 56 05	..V&..VU.HVT..VD
002190	CF 04 56 26 CE DD 56 55-86 48 56 54 85 CE 56 44	..V1..VF..(VJ..IVD
0021A0	CD A3 56 31 CD 94 56 46-85 7B 56 4A 85 69 56 44	.NV..KV..I..FV..
0021B0	C5 4E 56 05 C5 4B 56 05-C5 49 9C C5 46 56 05 C5	AV..;V..SV..6..3
0021C0	41 56 05 C5 3B 56 05 C5-38 56 05 C5 36 9C C5 33	V...V...V...\$V..
0021D0	56 05 C5 2E 56 05 C5 2C-9C C5 29 56 05 C5 24 56	..V...VQ..V....
0021E0	05 C5 20 56 05 CD 15 56-51 C5 11 56 05 C5 0F 9C	..V.....V....
0021F0	C5 0C 56 05 C5 0A 9F C5-07 56 05 C5 05 9F C5 02	V...V...V...V...
002200	56 05 C4 FD 56 05 C4 F7-56 05 C4 F4 56 05 C4 F2	...V...V...V...V...
002210	9C C4 EF 56 05 C4 EA 56-05 C4 E4 56 05 C4 E1 56	.....V...V...VQ
002220	05 C4 DF 9C C4 DC 56 05-C4 D7 56 05 CC CD 56 51	.....V...V...V...
002230	C4 CA 9C C4 C7 56 05 C4-C5 9F C4 C2 56 05 C4 BC	.....V...V...V...
002240	56 05 C4 B9 56 05 C4 B7-9C C4 B4 56 05 C4 AF 56	V...V...V...V...
002250	05 C4 A9 56 05 C4 A6 56-05 C4 A4 9C C4 A1 56 05	...V...V...V...
002260	C4 9C 56 05 C4 9A 9C C4-97 56 05 C4 92 56 05 C4	..V....V...V...
002270	8E 56 05 C4 85 56 05 C4-82 56 05 C4 80 9C C4 7D	.V...V...V....3

EP 0 401 077 A2

002250	56 05 C4 78 56 05 C4 72-56 05 C4 6F 56 05 C4 6D	V...xV..rV..oV..m
002290	9C C4 6A 56 05 C4 65 56-05 C4 63 9C C4 60 56 05	..jV..eV..c..v.
0022A0	C4 5B 56 05 C4 57 56 05-C0 4D 56 51 C4 49 56 05	.IV..WV..MVQ.IV.
0022B0	C4 47 9C C4 44 56 05 C4-42 9F C4 3F 56 05 C4 3D	.G..DV..B..?V..=
0022C0	9F C4 3A 56 05 C4 35 56-05 C4 2F 56 05 C4 2C 56	..:V..5V../V...V.
0022D0	05 C4 2A 9C C4 27 56 05-C4 22 56 05 C4 1C 56 05	..*..''V..''V...V.
0022E0	C4 19 56 05 C4 17 9C C4-14 56 05 C4 0F 56 05 CC	..V.....V...V..
0022F0	06 56 51 C4 03 9C C4 00-56 05 3E AD AE 01 01 EB	.VQ.....V.;....
002300	0B 9B DB BE 84 F2 90 9B-8B B6 D4 F6 2B 86 B8 F6+....+....
002310	B9 B6 9B F2 9B DF B6 9B-F2 9B DC 0E 16 00 9B D8	....N.....+....
002320	F1 9B D7 9E 4E F7 90 9B-8B C6 2B 86 B8 F6 89 86+....+....
002330	9B F2 9B DF B6 9B F2 9B-DC 0E 16 00 9B 08 F1 FB+....+....
002340	D9 9E F4 F6 9B DF 06 0C-00 9B D7 00 9B DB BE BE+....+....
002350	F2 90 9B 8B B6 BE F6 2B-86 AC F6 89 86 98 F2 9B+....+....
002360	DF 86 9B F2 9B DC 0E 16-00 9B D8 F1 9B D9 9E FB+....+....
002370	F6 90 9B 8B C7 2B 86 AC-F6 89 86 9B F2 9B DF 86+....+....
002380	9B F2 9B DC 0E 16 00 9B-D8 F1 9B D9 9E E2 F6 9B	..N.....F....
002390	D9 86 4E F7 9A 00 00 00-00 89 46 D2 9B D9 86 F4	..N.....F....
0023A0	F6 9A 00 00 00 00 B9 46-CA 9B D9 86 F6 F6 9A 00	....F.....+....
0023B0	00 00 00 89 46 CC 9B D9-86 E2 F6 9A 00 00 00 00,	..F...F...N....
0023C0	B9 46 B6 9B DF 46 D2 9B-D8 A6 4E F7 9B DC 06 1E+....+....
0023D0	00 9B D9 96 E6 F6 9B DC-16 06 00 9B DD D8 9B DF	.....+....t....
0023E0	E0 9E 9B DD C1 9B DD 00-74 13 9B D9 86 E2 F6 9B	.....+....u....
0023F0	DC 16 1E 00 9B DD D8 9B-DF E0 9E 75 14 9B DF 06	.....+....F..
002400	0A 00 9B DC 36 16 00-9A-00 00 00 00 89 46 B8 EB	H.....&....
002410	4B 9B D9 86 E6 F6 9B DC-16 26 00 9B DD D8 9B DF	..V.....&....
002420	E0 9E 76 13 9B D9 96 E6-F6 9B DC 16 26 00 9B DD	....V".....
002430	DB 9B DF E0 9E 76 22 9B-D9 86 E6 F6 9B DE 0E OA	....V".....
002440	00 9B DF 06 0A 00 9B DC-36 16 00 9B DE C1 9A 00	...F..F...F...
002450	00 00 00 89 46 B9 FF 46-D2 9B DF 46 CA 9B D8 A6+....
002460	F4 F6 9B DC 06 1E 00 9B-D9 96 E6 F6 9B DC 16 06	.....+....t....
002470	00 9B DD D8 9B DF E0 9E-74 16 9B D9 86 E6 F6 9B	.....+....t..N.
002480	DC 16 1E 00 9B DD D8 9B-DF E0 9E 74 03 FF 4E CA	..F.....
002490	9B DF 46 CC 9B D8 A6 FB-F6 9B DC 06 1E 00 9B D9	.....+....Y..
0024A0	95 CE F6 9B DC 16 06 00-9B DD D8 1F 9C 79 01 C5	.V.....V...V...
0024B0	A7 56 05 C5 A5 9C C5 A2-56 05 C5 9D 56 05 C5 9B	..V...V...V...V...V
0024C0	9C C5 9B 56 05 C5 93 56-05 C5 BF 56 05 C5 86 56	....V.....~V..yV.
0024D0	05 C5 B3 56 05 C5 B1 9C-C5 7E 56 05 C5 79 56 05	.sV..pV..n..kV..
0024E0	C5 73 56 05 C5 70 56 05-C5 6E 9C C5 6B 56 05 C5	fV..d..aV..IV..X
0024F0	66 56 05 C5 64 9C C5 61-56 05 C5 5C 56 05 C5 56	V..NVQ.JV..H..EV
002500	56 05 CD 4E 56 51 C5 4A-56 05 C5 48 9C C5 45 56	..C..@V..>..;V..
002510	05 C5 43 9F C5 40 56 05-C5 3E 9F C5 3B 56 05 C5	6V..OV..-V..+..(
002520	36 56 05 C5 30 56 05 C5-2D 56 05 C5 2B 9C C5 2B	V..#V...V...V...
002530	56 05 C5 23 56 05 C5 1D-56 05 C5 1A 56 05 C5 1B	...V...V...VQ...
002540	9C C5 15 56 05 C5 10 56-05 CD 07 56 51 C5 04 9C	..V.....V...V..
002550	C5 01 56 05 C4 FF 9F C4-FC 56 05 C4 F6 56 05 C4	..V.....V...V..

EP 0 401 077 A2

002560	F3 56 05 C4 F1 9C C4 EE-56 05 C4 E9 56 05 C4 E4 .V.....V...V...
002570	56 05 C4 E1 56 05 C4 DD-56 05 C4 DA 56 05 C4 D8 V...V...V...V...
002580	9C C4 D5 56 05 C4 D0 56-05 C4 CE 9C C4 CB 56 05 ...V...V.....V.
002590	C4 C6 56 05 C4 C2 56 05-CB BB 56 51 C4 B5 56 05 ..V...V...VQ..V.
0025A0	CC AE 56 51 C4 A8 56 05-CC A1 56 51 C4 9B 56 05 ..VQ..V...VQ..V.
0025B0	CC 94 56 51 C4 8E 56 05-C4 89 56 05 C4 86 56 05 ..VQ..V...V...V.
0025C0	C4 84 90 C4 81 56 05 C4-7C 56 05 C4 70 56 06 C4 ....V...IV..oV..
0025D0	6B 56 05 C4 68 56 05 C4-66 9C C4 63 56 05 C4 5E KV..hV..f..cv..^
0025E0	56 05 C4 50 56 06 C4 4B-56 05 C4 48 56 05 C4 46 V..PV..KV..HV..F
0025F0	9F C4 43 56 05 C4 3E 56-05 C4 3B 56 05 C4 37 9C ..CV..>V..;V..9.
002600	C4 36 56 05 C4 31 56 05-C4 25 56 06 C4 20 56 05 ..6V..IV..XV.. V.
002610	C4 1D 56 05 C4 1B 9C C4-1B 56 05 C4 13 56 05 C4 ..V.....V...V..
002620	05 55 06 C4 00 56 05 E9-A0 B4 03 01 92 0D 9B DF ..V...V.....
002630	E0 9E 74 13 9B D9 86 CE-F6 9B DC 16 1E 00 9B DD ..t.....
002640	D8 9B DF E0 9E 75 15 9B-DF 06 0C 00 9B DC 36 15 ..u.....6.
002650	00 9A 00 00 00 B7 B6-A4 F4 EB 49 9B D9 86 CE ..-----1....
002660	F6 9B DC 16 26 00 9B DD-D8 9B DF E0 9E 76 13 9B ..----&.....V..
002670	D9 86 CE F6 9B DC 16 26-00 9B DD DB 9B DF E0 9E ..----&.....
002680	76 23 9B D9 86 CE F6 9B-DE 0E 0C 00 9B DF 06 0C V#.....
002690	00 9B DC 36 16 00 9B DE-C1 9A 00 00 00 00 89 86 ..6.....
0026A0	A4 F4 FF 46 CC 9B DF 46-B6 9B D8 A8 E2 F6 9B DC ...F...F.....
0026B0	06 1E 00 9E D9 96 CE F6-9B DC 16 06 00 9B DD D8 ..-----
0026C0	9B DF E0 9E 74 16 9B D9-86 CE F6 9B DC 16 1E 00 ..t.....
0026D0	9B DD D8 9B DF E0 9E 74-03 FF 4E B6 C7 46 C2 01 ..-----t..N..F..
0026E0	00 C7 86 EE F6 00 00 83-7E F0 03 75 6B 8B 86 C0 ..-----7..uk..
0026F0	F6 3D 04 00 75 62 B3 7E-A4 00 75 51 C7 86 C2 F6 ..=..ub..?..ub..
002700	01 00 8B 46 CE 29 86 54-F7 83 BE 54 F7 02 7D 06 ..F..)T...T..?
002710	C7 86 54 F7 02 00 83 BE-54 F7 1E 7E 06 C7 86 54 ..T....T..?..T..
002720	F7 1E 00 FF B6 CC F6 FF-B6 DA F6 FF B6 54 F7 FF ..-----T..
002730	76 BA 6A 01 0E E8 00 00-83 C4 0A FF B6 54 F7 FF V..j.....T..
002740	B6 C2 F6 FF 76 A4 0E EB-00 00 B3 C4 06 83 7E A4 ..-----v.....^
002750	01 75 05 C7 46 A4 01 00-83 7E F0 02 74 03 E9 FB :u..F...~..t...
002760	08 8B 86 C0 F6 3D 01 00-74 1C 3D 02 00 75 03 E9 ..----=..t.=..u..
002770	76 04 3D 05 00 75 03 E9-86 07 3D 07 00 75 03 E9 V.=..u...=..u..
002780	D4 08 E9 D7 08 90 FF 46-A4 B3 7E A4 01 7F 03 E9 ..-----F..~..
002790	74 01 C7 46 A4 00 00 C7-86 C2 F6 00 00 FF B6 54 t..F.....T
0027A0	F7 6A 00 6A 00 0E E8 00-00 B3 C4 06 1E 68 E3 01 .j..j.....h..
0027B0	6A 00 9A 00 00 00 00 B3-C4 06 6A 01 0E E8 00 00 j.....j.....j
0027C0	B3 C4 02 6A 00 6A 02 9A-00 00 00 00 B3 C4 04 6A ..j.....j.....j
0027D0	01 6A 00 9A 00 00 00 00-83 C4 04 6A 00 9A 00 00 ..j.....j..v.....
0027E0	00 00 B3 C4 02 6A 00 FF-76 BA 9A 00 00 00 00 B3 ..j..h..j..v..v..
0027F0	C4 04 6A 08 68 80 00 6A-00 FF 76 BA FF 76 C0 9A ..-----j..v..v..
002800	00 00 00 00 B3 C4 0A 6A-01 FF 76 BA FF 76 BE FF ..-----j..v..v..
002810	76 BA 9A 00 00 00 00 B3-C4 0B 6A 00 9A 00 00 00 V.....j.....
002820	00 B3 C4 02 6A 05 6A 01-FF B6 B0 F6 FF B6 C4 F6 ..j..j.....
002830	FF 76 BA FF B6 D2 F6 FF-B6 DE F6 FF B6 DC F6 FF ..V.....

EP 0401 077 A2

002840	B6 EA F6 FF 76 BA 9A 00-00 00 00 83 C4 14 6A 00	.....v.....j.
002850	6A 02 9A 00 00 00 00 B3-C4 04 6A 01 6A 01 9A 00	j.....j.j..
002860	00 00 00 B3 C4 04 FF B6-D2 F6 FF B6 DE F6 FF B6	.....
002870	DC F6 FF B6 EA F6 0E E8-00 00 83 C4 08 0E EB 00	.....
002880	00 FF 76 BA 6A 00 9A 00-00 00 00 83 C4 04 FF 76	..v.j.....v.j..
002890	BA 9A 00 00 00 00 83 C4-02 FF 76 BA 6A 01 9A 00	.....v.j..
0028A0	00 00 00 83 C4 04 FF B6-A0 F2 9A 00 00 00 00 83	.....
0028B0	C4 02 6A 00 9A 00 00 00-00 83 C4 02 FF B6 A0 F2	..j.....
0028C0	9A 00 00,00 00 83 C4 02-FF B6 CC F6 FF B6 D6 F6	.....
0028D0	FF B6 54 F7 FF 76 BA 6A-00 0E EB 00 00 83 C4 0A	..T.v.i.....
0028E0	0E EB 00 00 FF 76 Ba FF-76 CC FF 76 CA FF 76 D2	....v..v..v..v..
0028F0	FF B6 A4 F4 FF 76 B6 FF-36 0E 00 FF 36 0E 00 0E	....v..6...e..
002900	EB 00 00 83 C4 10 83 7E-A4 01 74 03 EF 4D 07 6A	....v..t..M..
002910	00 6A 01 9A 00 00 00 00-83 C4 04 6A 00 9A 00 00	..j.....
002920	00 00 B3 C4 02 FF B6 54-F7 FF B6 C2 F6 FF 76 A4	....T.....v.
002930	0E EB 00 00 83 C4 0e 1E-68 08 02 6A 00 9A 00 00	....h..j..
002940	00 00 83 C4 06 6A 00 0E-EB 00 00 83 C4 02 83 BE	....j.....
002950	BA F6 00 75 03 E9 D2 00-60 3E 04 00 00 74 18 FA	....u.....t..
002960	00 00 00 00 08 C0 75 0F-6A 49 6A 43 1E 58 29 03	....u..31E.B..
002970	0E EB 00 00 53 C4 08 80-3E 04 00 00 75 03 89 9D	....2...u...
002980	00 6A 01 1E 6B 64 02 9A-00 00 00 00 83 C4 06 87	F.eu..hh..j..
002990	46 A2 40 75 11 1E 6B 6B-02 6A 01 9A 00 00 00 00	....n.....
0029A0	83 C4 06 EB 6E 90 C7 86-A6 F4 00 00 BB 20 20 BB	.....
0029B0	01 00 BD BE FC F6 16 07-F2 AB AA B3 B6 A6 F4 03	.....S..
0029C0	BD 86 FC F6 8B DB SB FB-9C D0 B9 FF FF 33 C0 F2	....1Q....P..v..
0029D0	AE F7 B1 49 51 BD 86 FC-F6 16 50 FF 76 42 AB 9C	M..AVX..i..ZVO..W..
0029E0	4D 01 CF 6E 56 25 C7 69-9D CF 5A 56 3C C7 57 9D	.K..DVD..@..ZVB..
0029F0	C7 4B 9D 87 44 56 4F C7-40 9D CF 32 56 42 C7 2D	..VE..VX....VJ
002A00	9D 87 1B 56 45 CF 10 56-25 C7 0B 9D 87 04 54 4A	..V...V>..V:....
002A10	CE F0 56 1D CE E6 56 3E-86 D3 56 34 C6 CF 9F C6	....VS..VT..VU..
002A20	CB 9F 86 B4 56 35 86 AD-56 54 CE 93 56 55 CE 87	V4..JVB..dV>.dV..Y
002A30	56 34 CE 7D 56 32 CE 71-56 3E CE 64 56 2E CE 59	V>.QV..JVD..1VA..Z
002A40	56 3E 86 51 56 2C 86 4A-56 44 CE 31 56 41 CE 25	V>..V+..VS..V'..
002A50	56 3E CE 19 56 2B CD EF-56 53 CD E5 56 27 CD D2	VV..VX..VS..VA..
002A60	56 56 CD BD 56 58 CD B0-56 53 CD A6 56 41 CD 9A	V>..VE..VZ....yV
002A70	56 3E 85 90 56 45 CD 85-56 25 C5 B0 9D 85 79 56	J..VJ..VT..V...V
002A80	4A 85 1A 56 4A 85 08 56-54 C4 A5 56 05 C4 A2 56	....V...V...V...V..
002A90	05 C4 A0 9C C4 9D 56 05-C4 98 56 05 C4 92 56 05	..V.....V...V..
002AA0	C4 BF 56 05 C4 BD 9C C4-8A 56 05 C4 85 56 05 C4	....V..CV..wV..1
002AB0	83 9C C4 B0 56 05 C4 7B-56 05 C4 77 56 05 C4 6C	VQ.HV..f..cv..a..
002AC0	56 51 C4 68 56 05 C4 66-9C C4 63 56 05 C4 61 9F	.^V..^..VV..TV..
002AD0	C4 5E 56 05 C4 5C 9F C4-59 56 05 C4 54 56 05 C4	NV..KV..I..FV..A
002AE0	4E 56 05 C4 4B 56 05 C4-49 9C C4 46 56 05 C4 41	V..;V..BV..6..3V
002AF0	56 05 C4 3B 56 05 C4 38-56 05 C4 36 9C C4 33 56	...V..\$VQ.!...V..
002B00	05 C4 2E 56 05 CC 24 56-51 C4 21 9C C4 1E 56 05	....V...V...V..
002B10	C4 1C 9F C4 19 56 05 C4-13 56 05 C4 10 56 05 C4	....V...V...V..

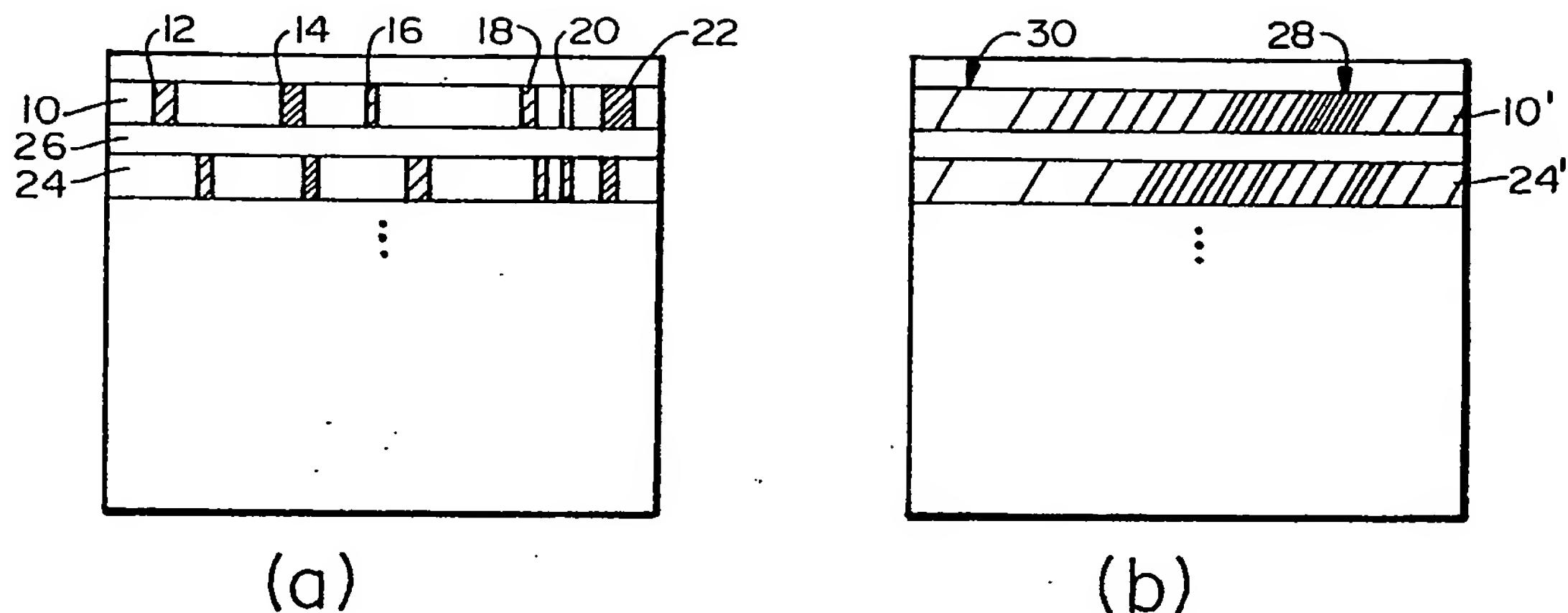


FIG. 1

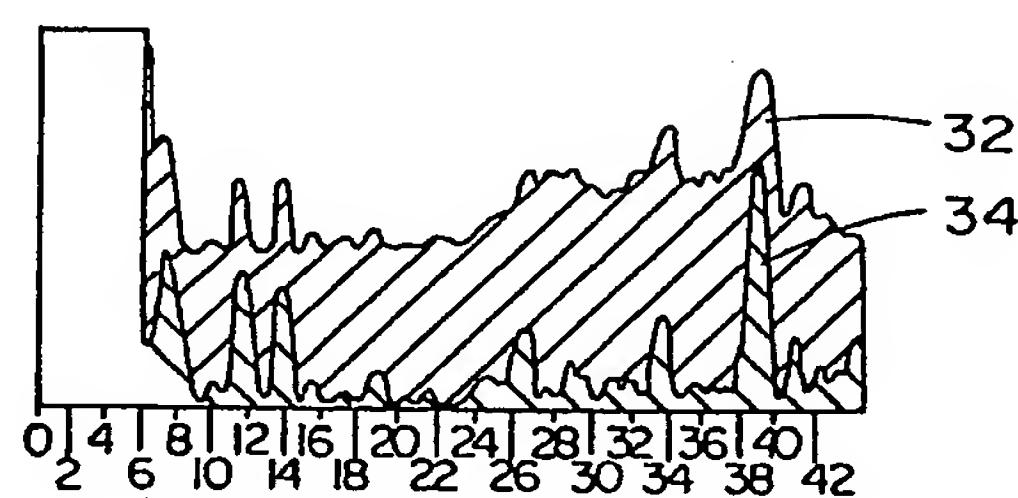


FIG. 2

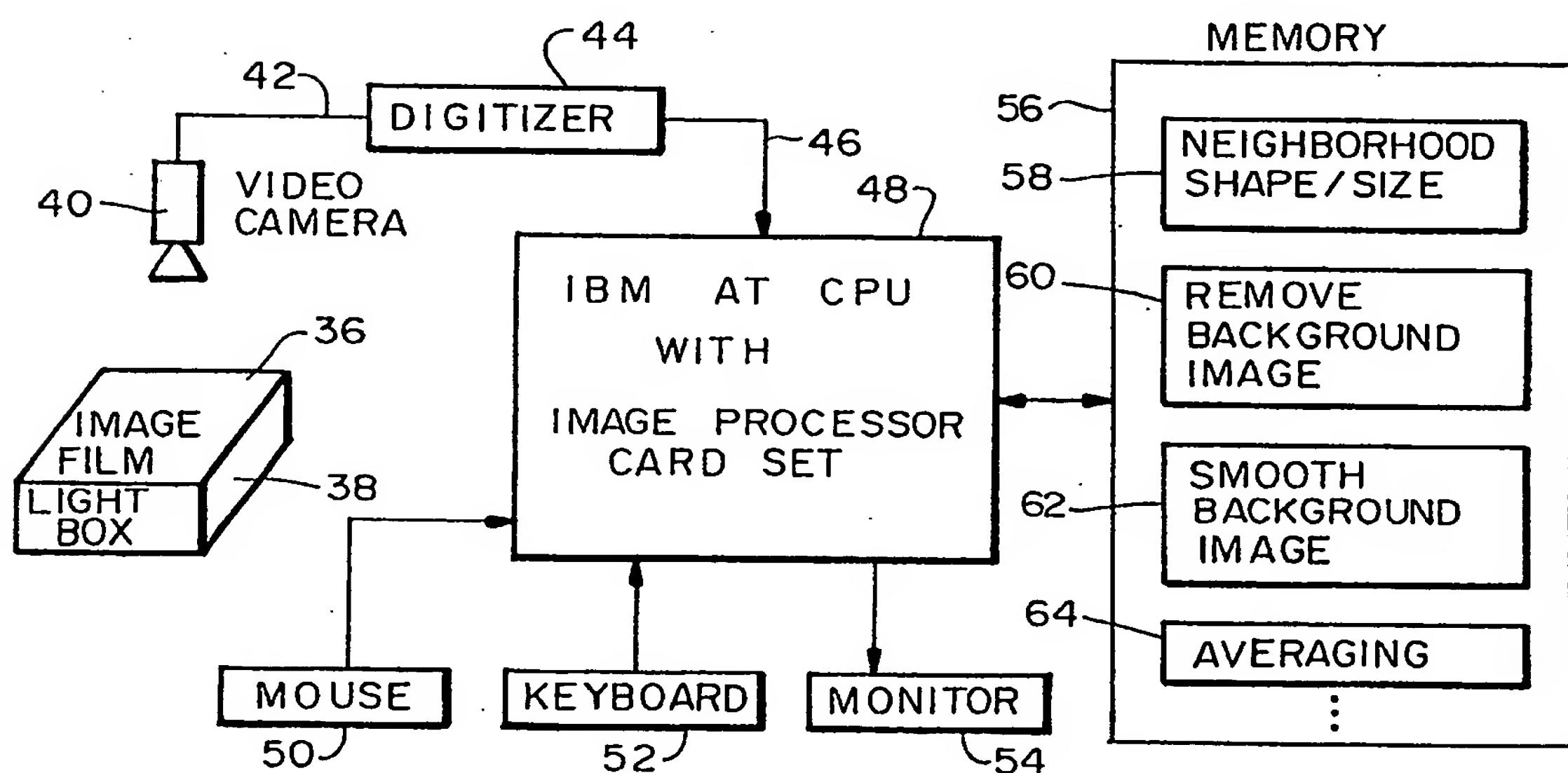


FIG. 3

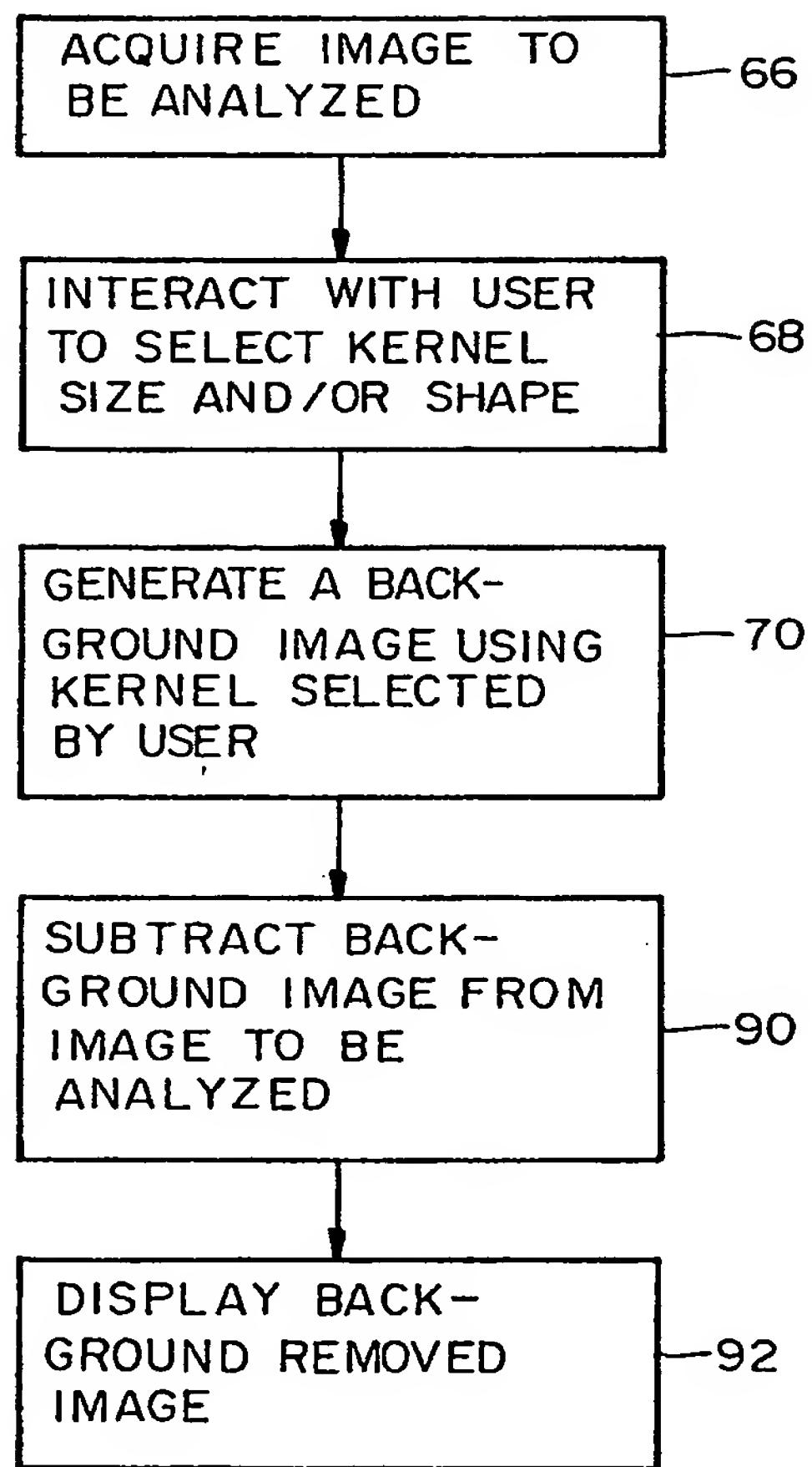


FIG. 4

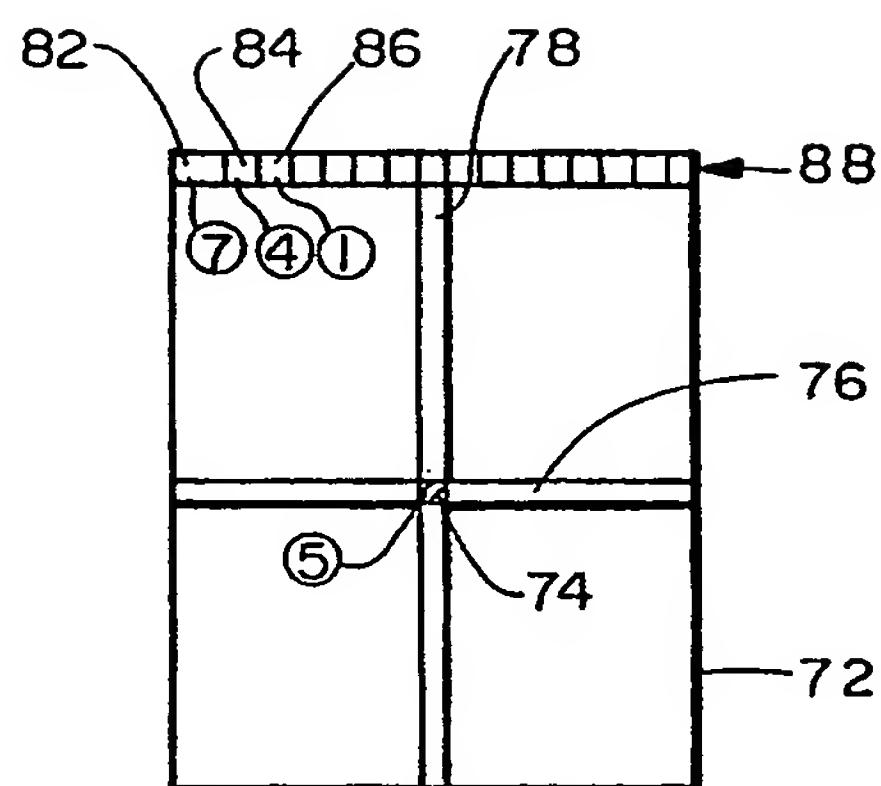


FIG. 5

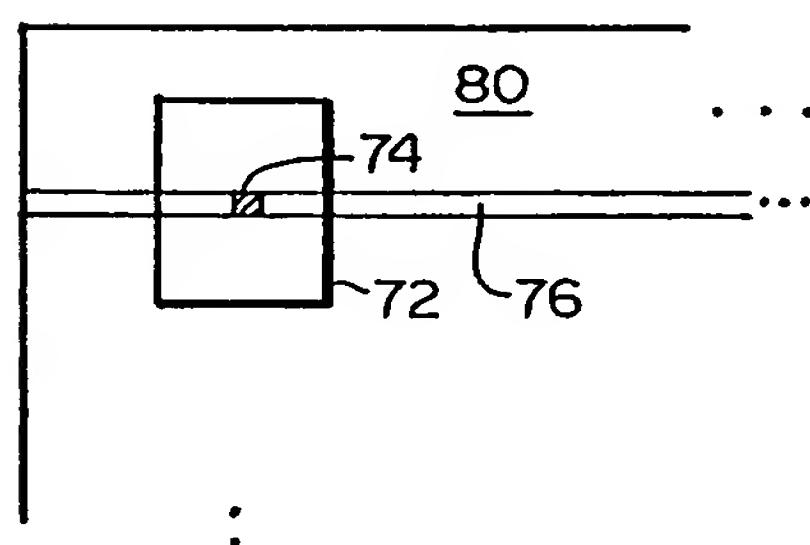


FIG. 6

Neu eingereicht / Newly filed
Nouvellement déposé

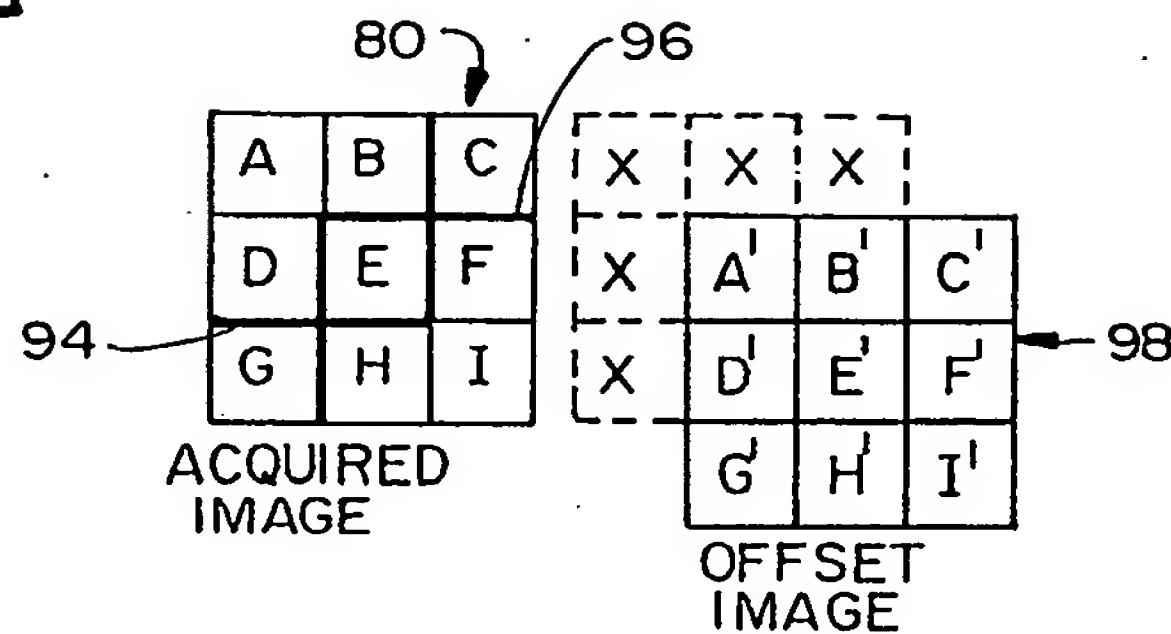


FIG. 7

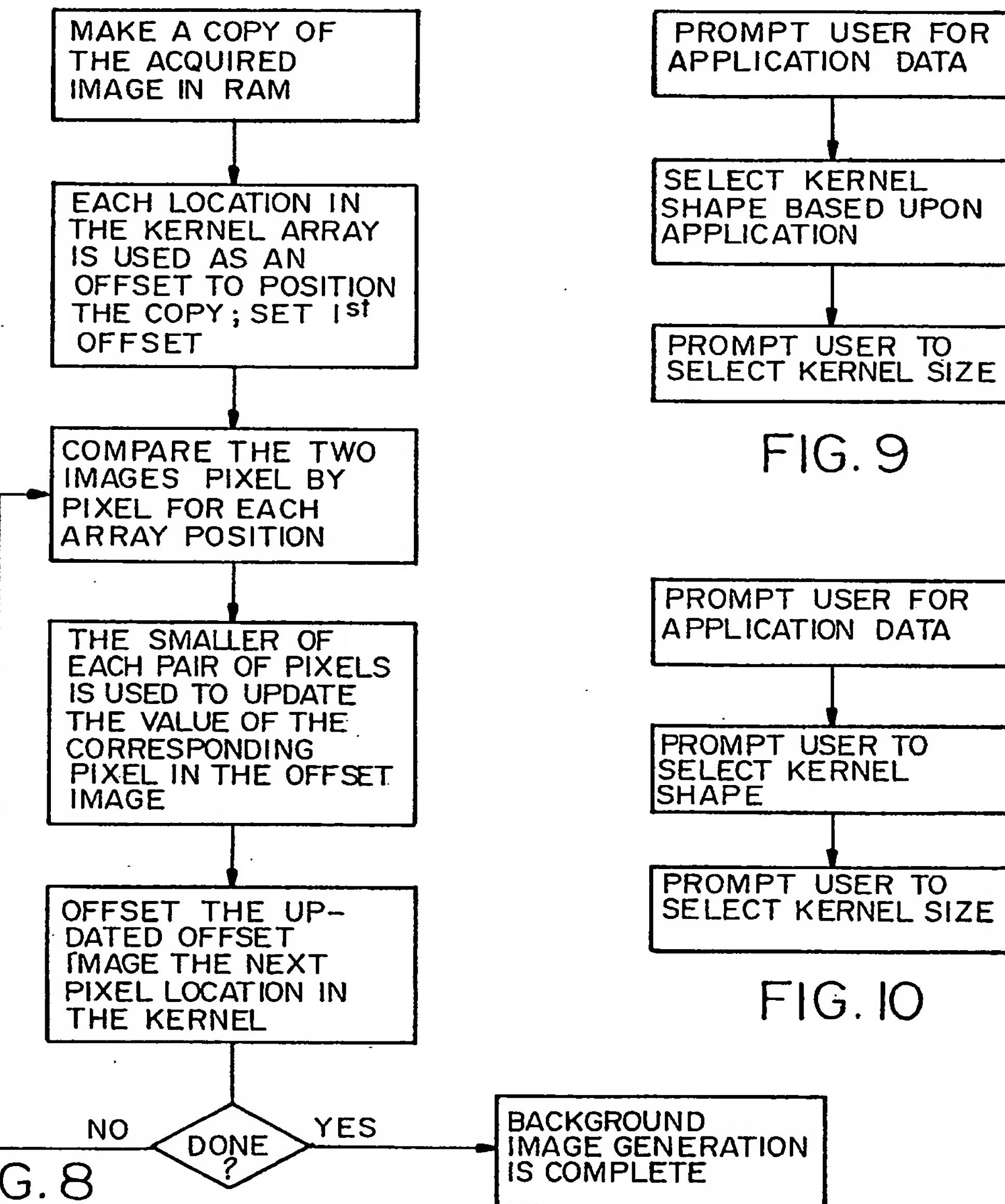


FIG. 8

FIG. 9

FIG. 10

Neu eingereicht / Newly
Nouvellement déposé

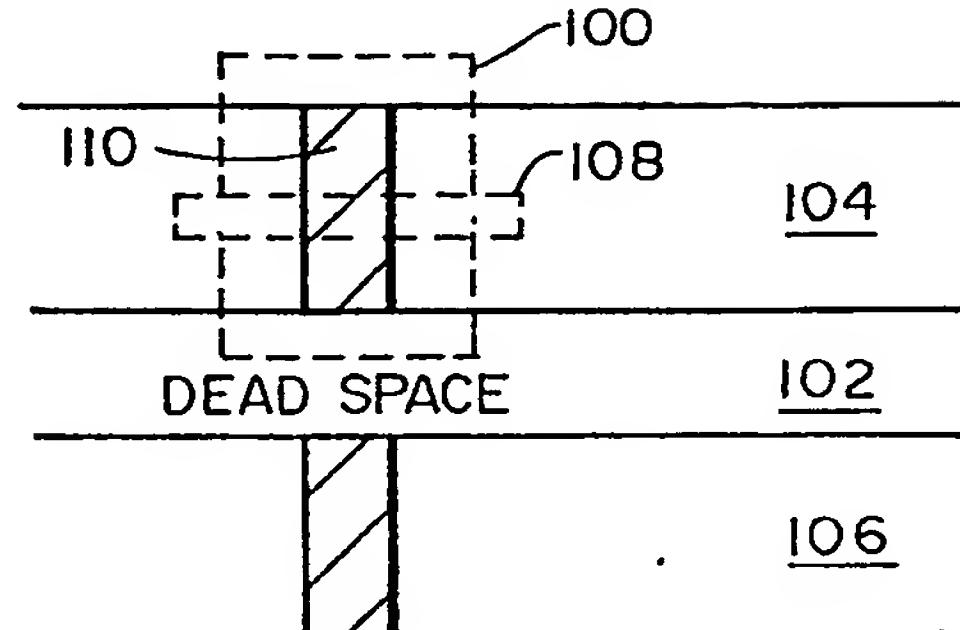


FIG. 11

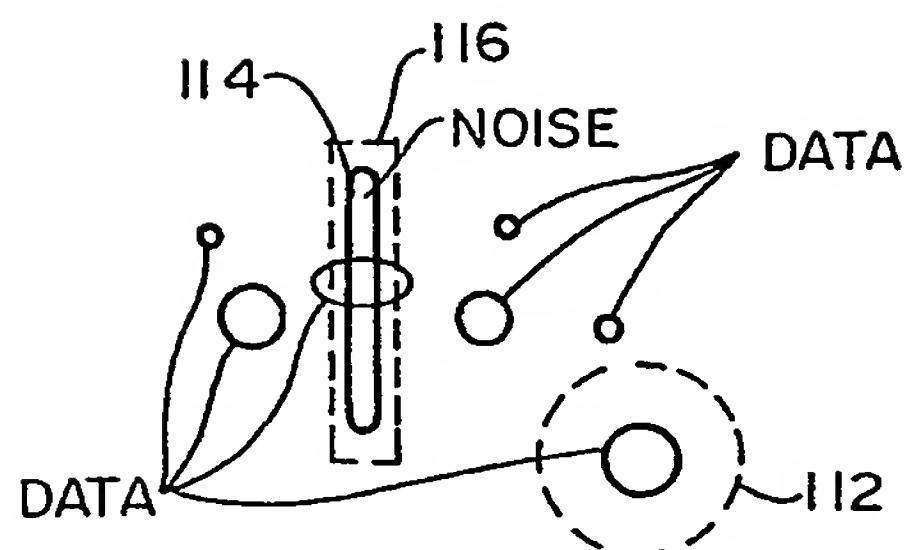


FIG. 12

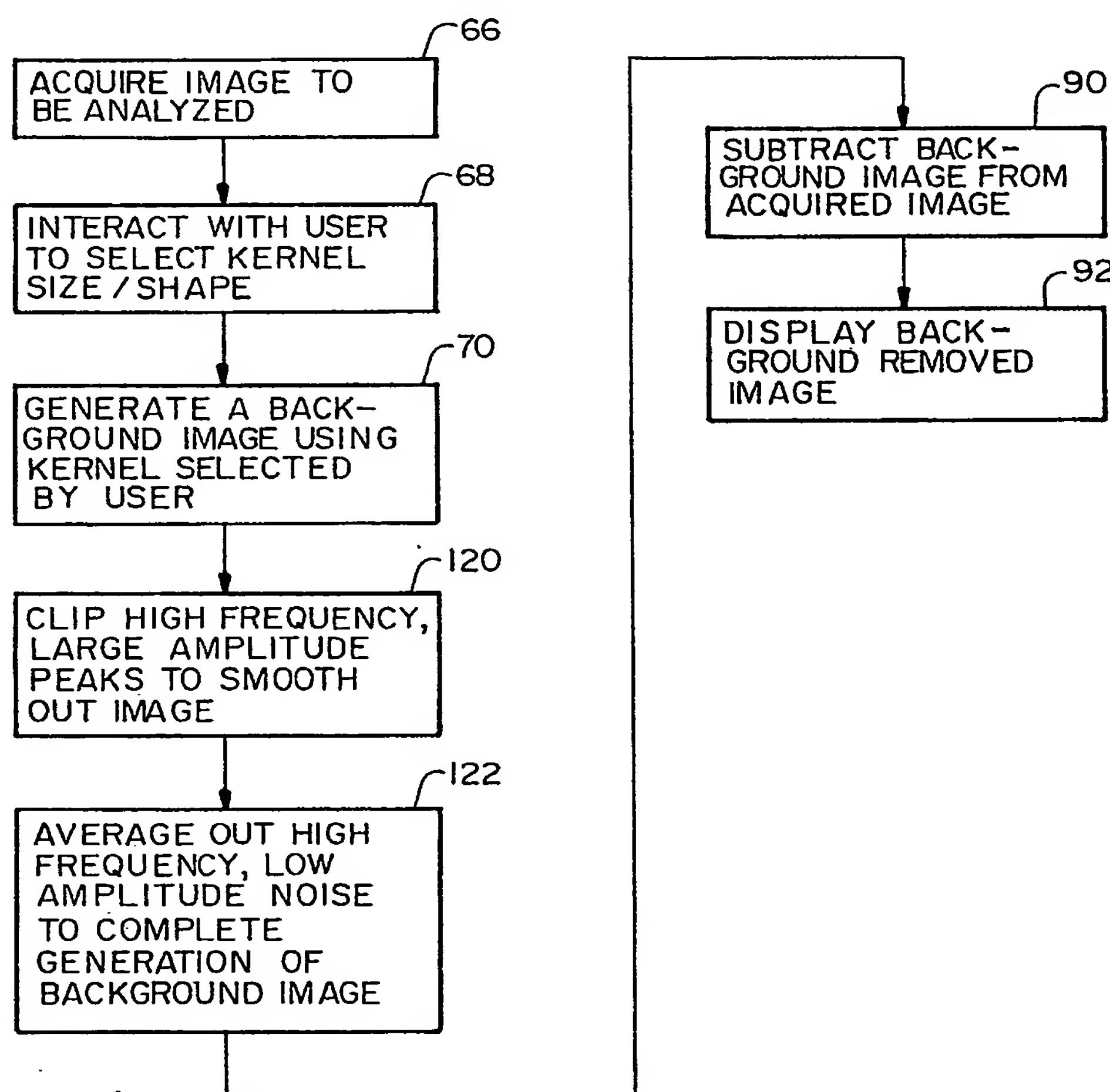
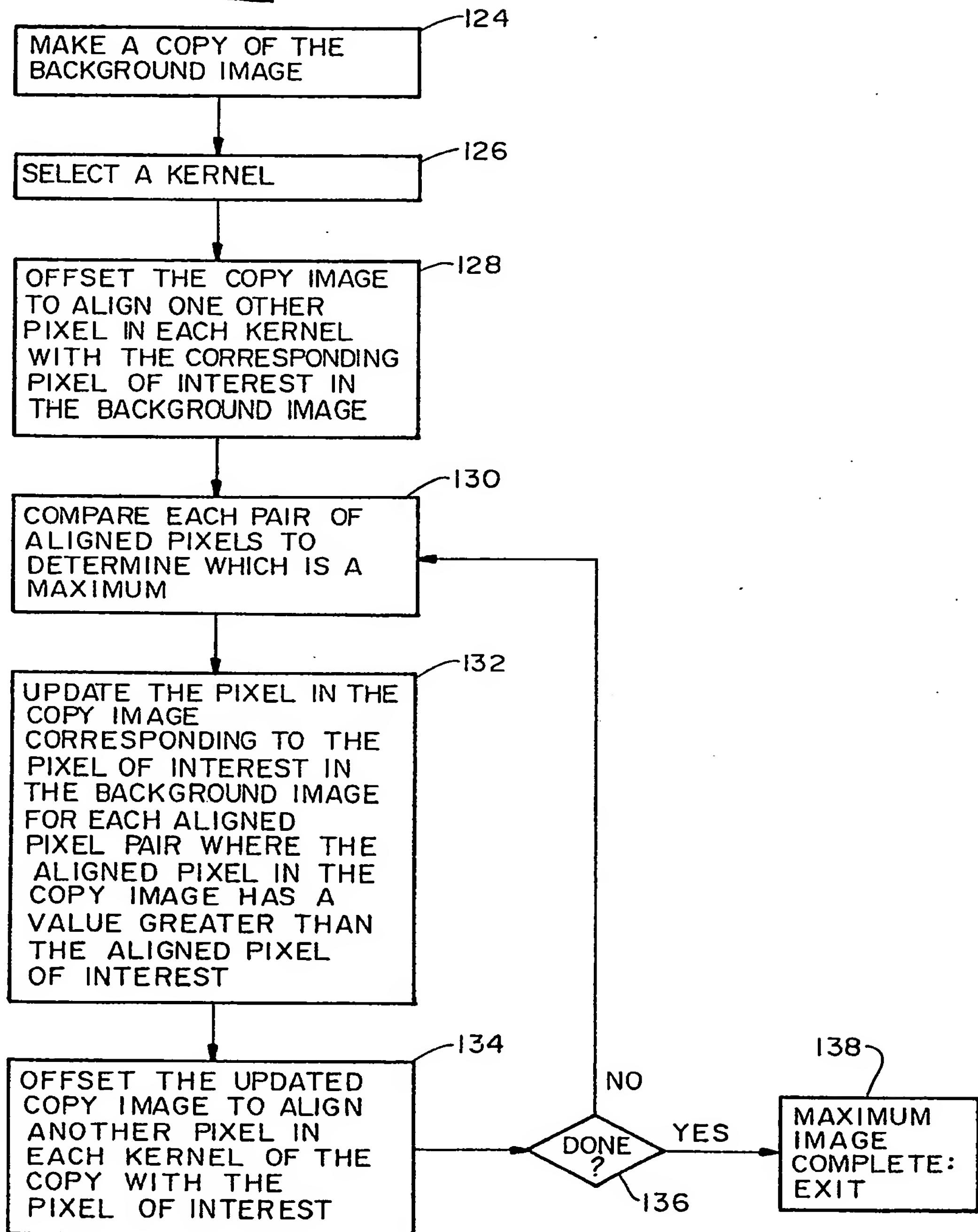


FIG. 13

Neu eingereicht / Newly filed
Nouvellement déposé



GENERATE MAXIMUM IMAGE FROM BACKGROUND IMAGE

FIG. 14

Neu eingereicht / Newly filed
Nouvellement déposé

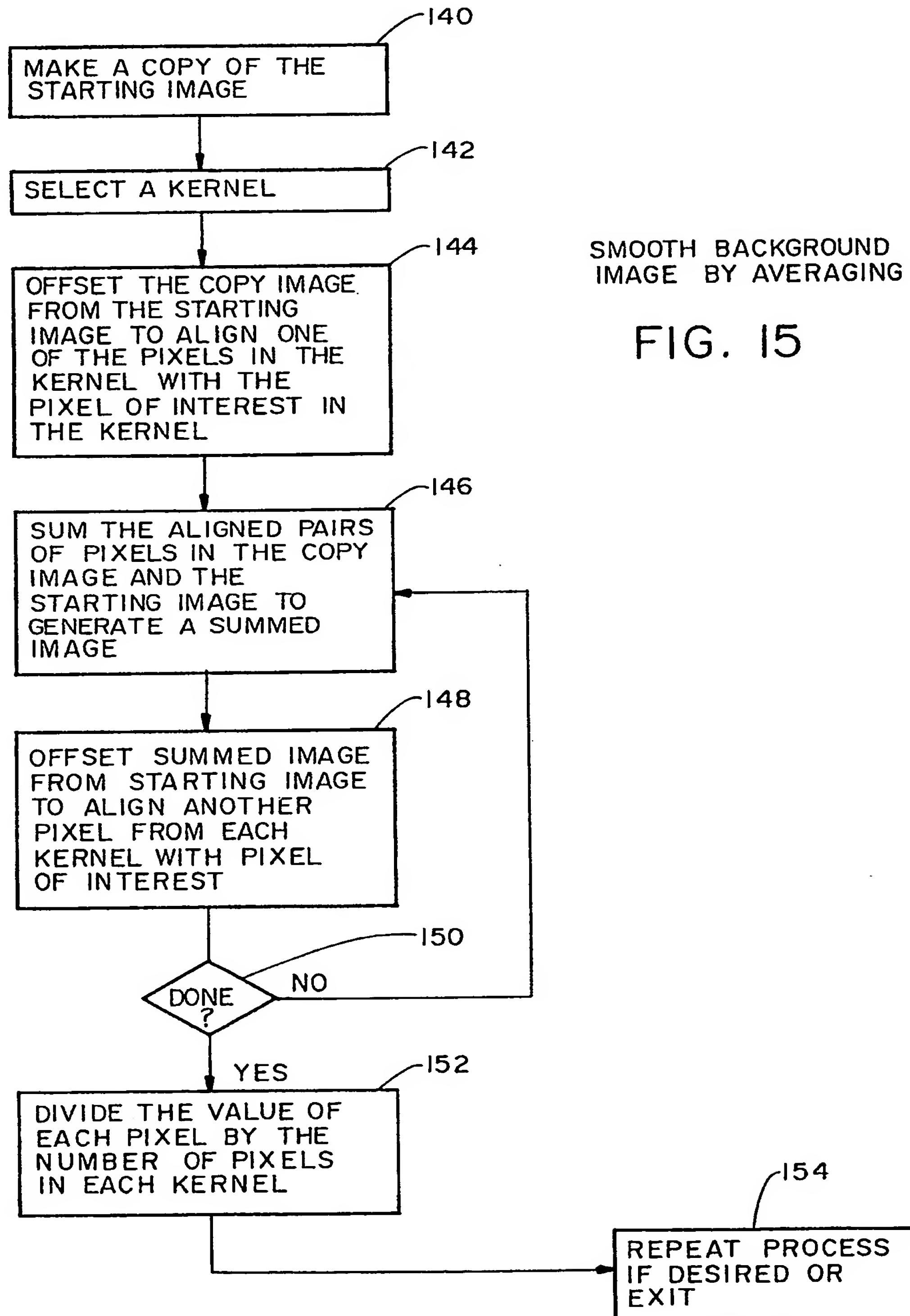


FIG. 15

Neu eingereicht / Newly filed
Nouvelement déposé

PROCESS FOR GENERATING A PERCENT CHANGE IMAGE

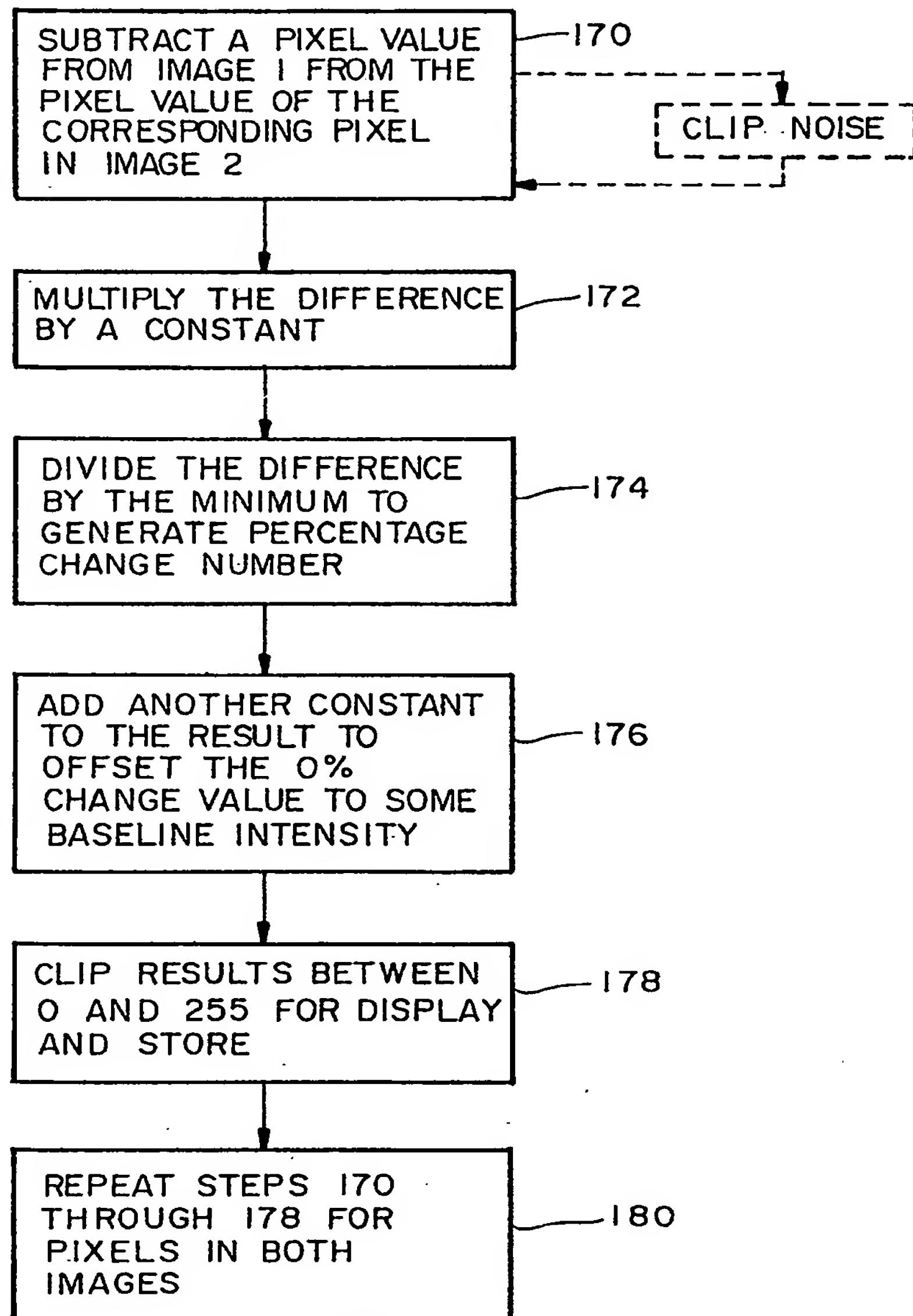


FIG. 16

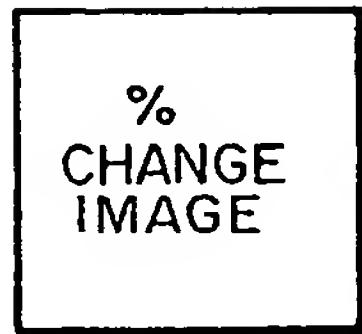
Neu eingereicht / Newly filed
Nouvellement déposé



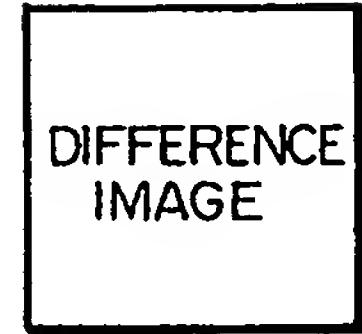
(a)



(b)

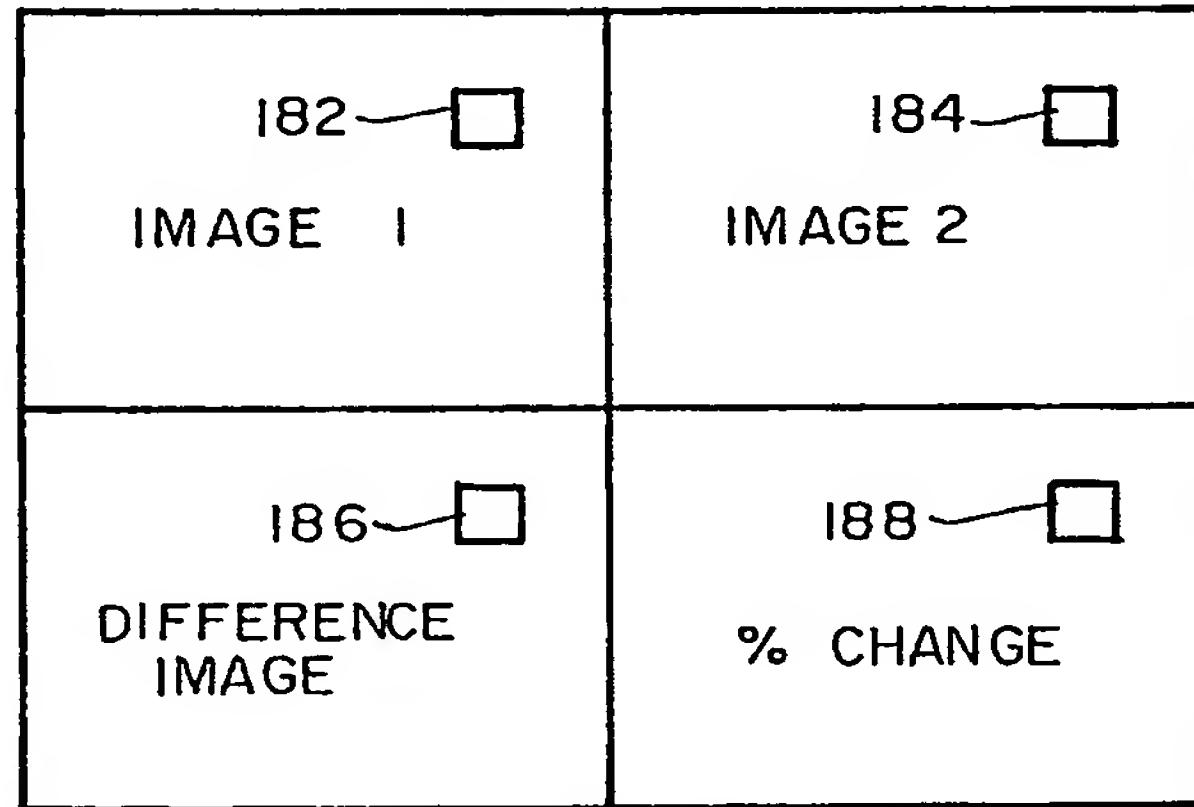


(c)



(d)

QUAD DISPLAY



(e)

FIG. 17

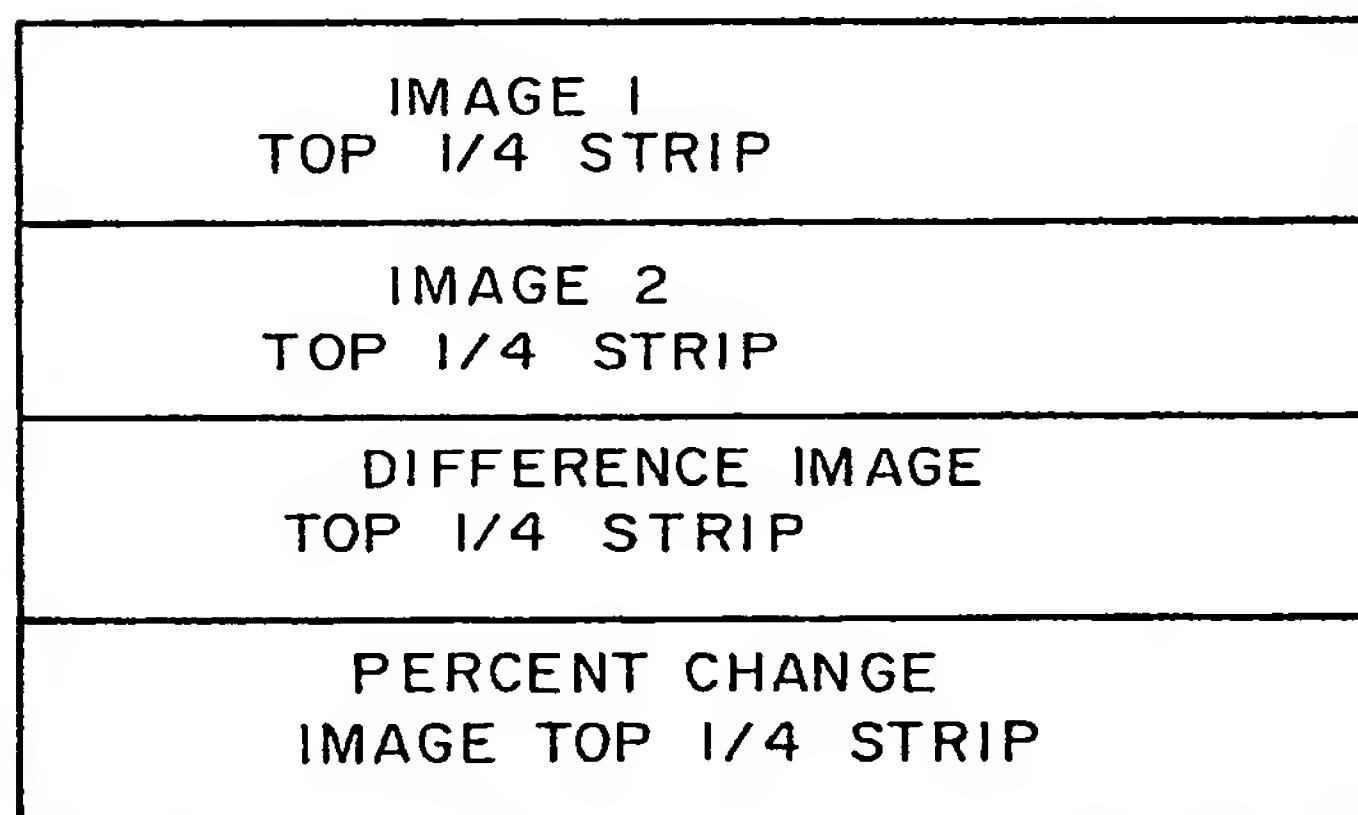


FIG. 18

Neu eingereicht / Newly filed
Nouvellement déposé

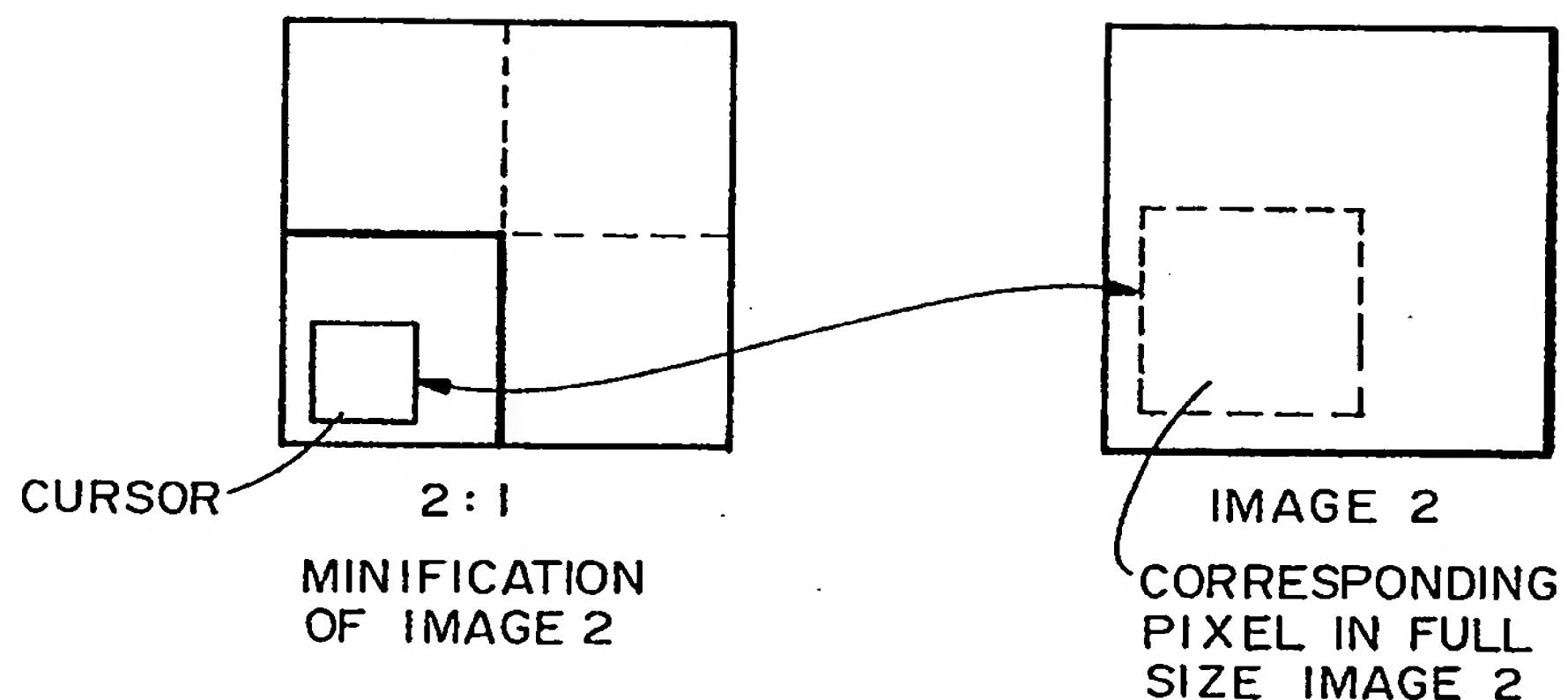


FIG. 19

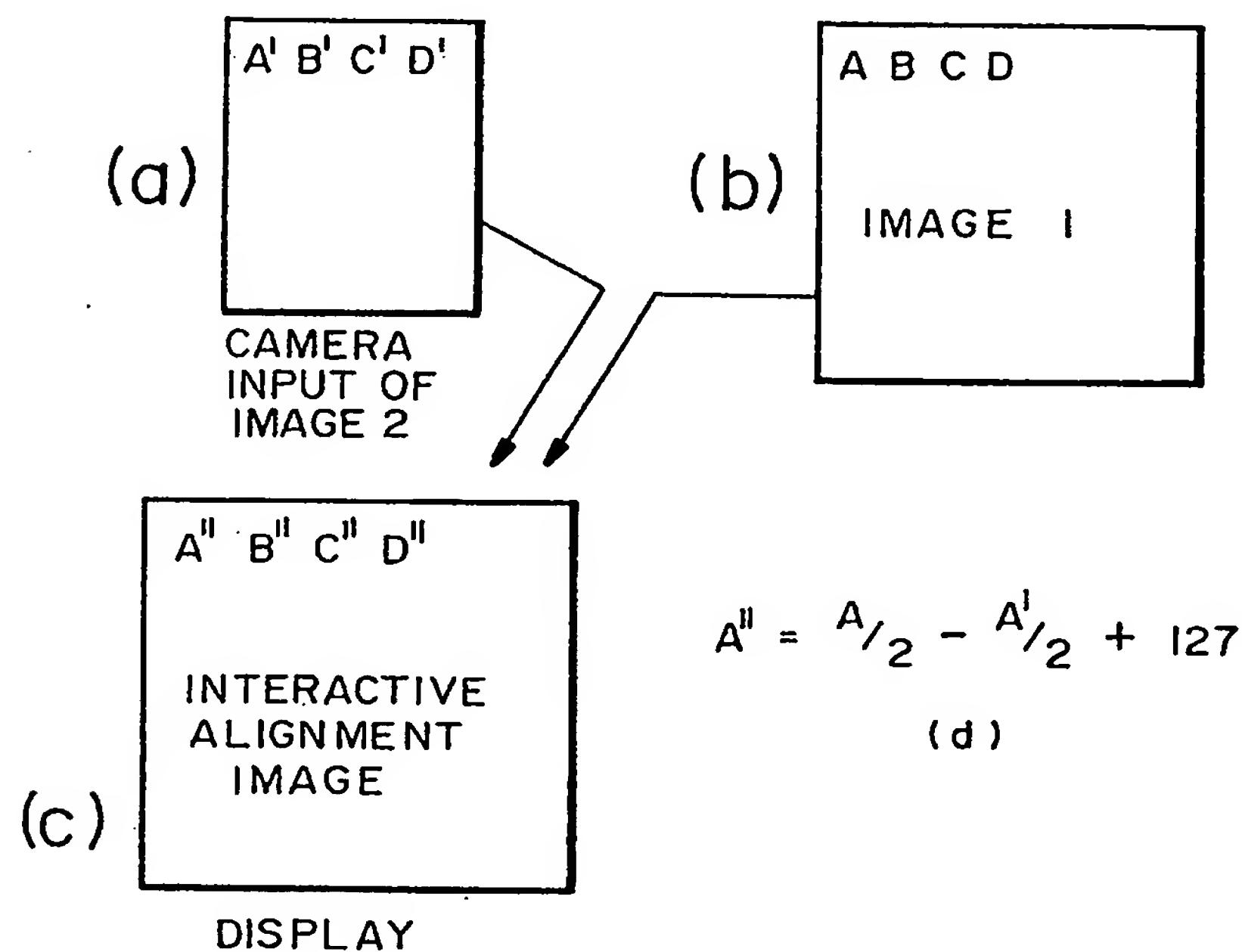


FIG. 20



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European Patent Office
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0 401 077 A3

(12)

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F-75116 Paris(FR)

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(54) Method and apparatus for removing noise data from a digitized image.

(57) An apparatus and method for removing background noise and high frequency noise from an image by comparing each pixel in the image with neighboring pixels defining a variably shaped and

sized kernel. The size and shape of the kernel are optimized for the particular characteristics of the data to be analyzed.

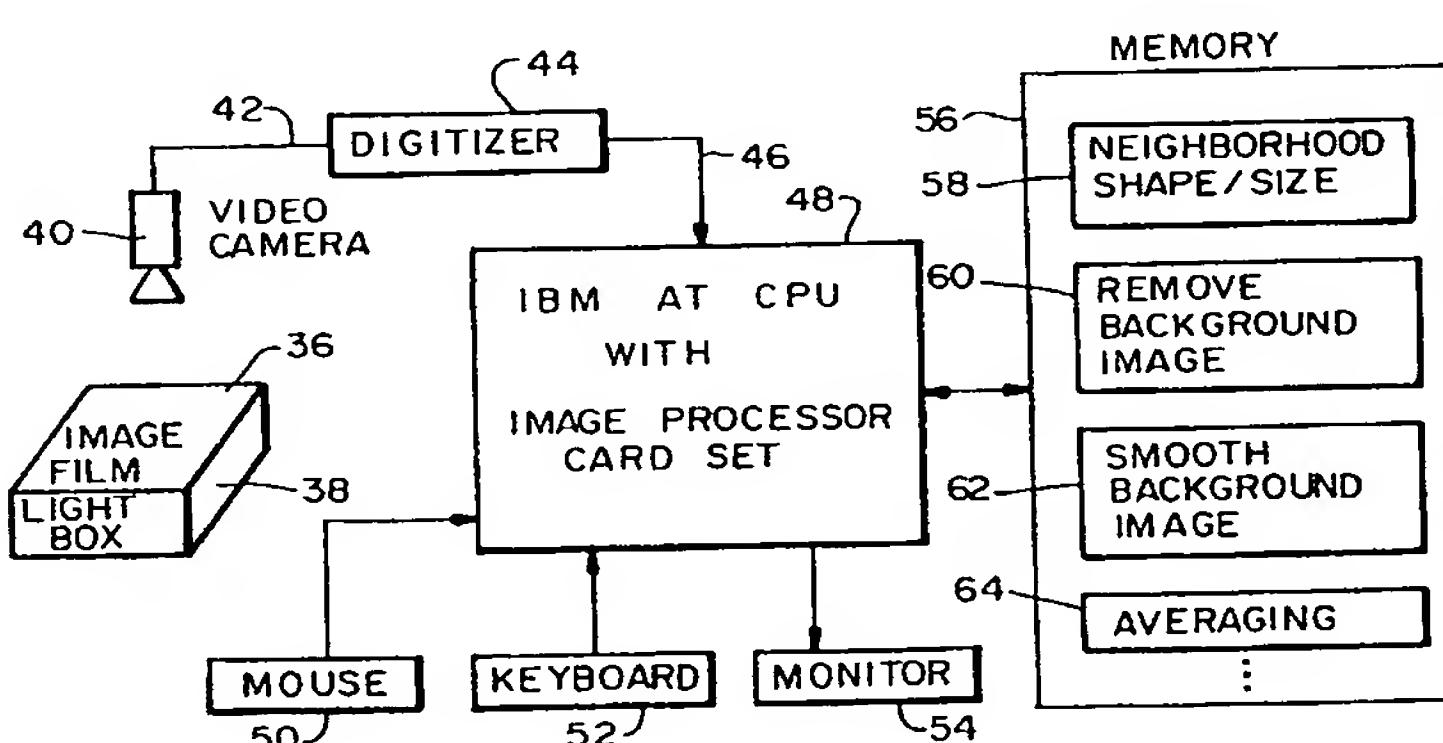


FIG. 3

EP 0 401 077 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 90 40 1304
PAGE1

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-4 823 194 (TADAOKI MISHIMA ET AL)	1-3,8, 31,34-36	G06F15/68 H04N1/40
Y	* abstract *	4,11,14, 15	
A	* column 4, line 31 - line 38 * * column 13, line 67 - column 14, line 33; claims 1,2,6,8,9,11 *	16,17	
Y	SIGNAL PROCESSING. vol. 15, no. 3, October 1988, AMSTERDAM pages 249 - 258; P.W. VERBEEK ET AL: 'Low-level Image Processing by Max-Min Filters'	4,11	
A	* page 249, left column, line 1 - page 250, left column, line 3 * * Section 4 *	1,8,16, 17,31,34	
Y	PROCEEDINGS OF THE EIGHTH ANNUAL CONFERENCE OF THE IEEE/ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY vol. 2, November 1986, FORT-WORTH, TEXAS pages 1113 - 1117; R.M. RANGAYYAN ET AL: 'Pixel-independent image processing techniques for enhancement of features in mammograms'	14,15	
A	* page 1114, left column, paragraph 2 - right column, paragraph 1 *	1,8,16, 17,31,34	G06F H04N G06K
D,A	PROCEEDINGS OF S.P.I.E. METHODS OF HANDLING AND PROCESSING IMAGERY vol. 757, 1987, pages 40 - 47; H.G. RUTHERFORD AT AL: 'Object Identification and Measurement from Images with Access to the Database to Select Specific Subpopulations of Special Interest' * abstract * * page 46, line 20 - line 23 *	1,8,16, 17,31,34	
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The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
BERLIN	04 AUGUST 1992	NICHOLLS J.	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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EUROPEAN SEARCH REPORT

Application Number

EP 90 40 1304
PAGE2

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	<p>COMPUTER, vol. 16, no. 1, January 1983, LONG BEACH US pages 22 - 34; S.R. STERNBERG: 'Biomedical Image Processing' * the whole document *</p> <p>-----</p>	1, 8, 16, 17, 31, 34	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
BERLIN	04 AUGUST 1992	NICHOLLS J.	
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document</p>	
<p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>			